SUBCHAPTER 2.6

BIOLOGICAL RESOURCES

2.6 Biological Resources

The 1980 and 1983 EIRs identified biological resources impacts as significant but mitigable. Findings in the 1980 EIR were based on the 1979 Biological Survey for the Sycamore Springs Specific Plan. The report discussed the presence of riparian woodland, aquatic areas and associated upland disturbed grassland habitat. Mitigation measures included on-site riparian preservation, maintaining ponds related to the golf course, and revising grading assumed for the golf course. No sensitive plant or animal species were noted on site.

Findings in the 1983 EIR also were based on the 1980 Technical Report completed for the Sycamore Springs Project. Mitigation was specified for wetlands habitat—both in terms of rehabilitation/preservation and creation of acreage lost at a greater than 1:1 ratio. The small amount of sage scrub was in a portion of both prior projects to be retained in open space.

Currently, on-site habitat has changed in type and extent. The southern riparian forest on site has expanded, and a large portion of the site that was considered fallow field is now characterized as non-native grassland. In addition to changes to on-site physical conditions since the early 1980s, a number of changes have occurred in terms of review requirements. The County MSCP was implemented in 1997, and the County RPO was enacted in 1991. The least Bell's vireo (*Vireo bellii pusillus*) has been listed at both the state (October 2, 1980) and federal (May 2, 1986) levels as endangered and is known to be on site. Other sensitive species have been noted on site as well.

This subchapter describes existing biological conditions within the Project site and vicinity, identifies associated regulatory requirements, and evaluates potential impacts (including cumulative impacts) and mitigation measures related to implementation of the Proposed Project. A Biological Technical Report was prepared for the Project by REC Consultants, Inc. (REC; 2013a) and is summarized below; the complete report is included as Appendix G of this EIR. Refer to text below for new and/or revised Project evaluation of issues related to biology.

2.6.1 Existing Conditions

2.6.1.1 *Existing Setting*

Land Uses

Historically, the Project site has been used for agriculture. The northern portion of the site (north of SR-76) currently contains a model airplane airfield and a dirt model car track surrounded by a maintained fuel management zone and undeveloped habitat. The southern portion (south of SR-76) contains citrus and undeveloped habitat and borders the San Luis Rey River, located to the south. This southern area has been used for off-road activity in recent years. Surrounding land uses include undeveloped land to the north and east, undeveloped and agricultural land to the south, and undeveloped land and I-15 to the west.

Biological Surveys

The Project site was surveyed for plants and animals in 2004 and 2005 by REC, with additional surveys conducted in 2012 and 2013. Species were identified directly by sight with the aid of binoculars or by vocalizations, and indirectly by scat, tracks, and/or burrows. The existing habitat and site conditions were assessed to determine whether or not any sensitive species had the potential to occur on site. Focused protocol surveys were performed on site for the federally endangered southwestern arroyo toad (*Bufo californicus*) in 2004, and for the federally threatened coastal California gnatcatcher (*Polioptila californica californica*) and federally and state endangered least Bell's vireo in 2004, 2012, and/or 2013. In addition, a habitat assessment was completed for the federally endangered and state threatened Stephens' kangaroo rat (*Dipodomys stephensi*) in 2004 and sensitive plant surveys were conducted in 2004 and 2005. Jurisdictional wetland delineations were performed on site by REC in 2004 and 2013.

Habitats

Eleven vegetation communities were observed within the Project site, as well as off-site impact locations. A brief description of each in relation to the Proposed Project is provided below. Vegetation communities on site are illustrated on Figure 2.6-1, On- and Off-site Biological Resources/Impacts, and summarized on Table 2.6-1, Vegetation Communities/Habitats and Proposed Impacts.

Southern Riparian Forest

Southern riparian forest within the Project site is dominated by a canopy of Gooding's black, red, and arroyo willows (*Salix gooddingii*, *S. laevigata*, *S. lasiolepis*, respectively), cottonwoods (*Populus fremontii* subsp. *fremontii*), and western sycamore (*Platanus racemosa*). The dense and diverse understory contains saplings of canopy species, shrubs such as mule fat (*Baccharis salicifolia* subsp. *salicifolia*), narrow-leaf willow (*Salix exigua*), and western poison oak (*Toxicodendron diversilobum*). A variety of herbs, such as yerba mansa (*Anemopsis californica*), San Diego sedge (*Carex spissa*), and spikesedges (*Eleocharis* spp.), constitute the herbaceous understory. Southern riparian forest is considered sensitive because it is a wetland habitat under the local, state, and federal definitions of wetlands. Wetlands are an important source of food, water, and shelter for wildlife species. They also provide valuable water quality and cycling roles in the ecosystem.

Approximately 19.6 acres of southern riparian forest habitat occur on site along Horse Ranch Creek and its tributaries. In addition, approximately 1.1 acres of this habitat occurs within off-site impact areas associated with improvements to Pankey Road and SR-76. The habitat on site is of good quality and supports several sensitive avian species, as discussed below. The edges of this habitat, however, are somewhat devalued for wildlife use due to the adjacent disturbed lands, noise from the adjacent freeway and highway, and ongoing uses.

Southern Riparian Scrub

Approximately 4.52 acres of southern riparian scrub occur along the San Luis Rey River at the southern edge of the Project site. The southern riparian scrub on site is characterized by a less tall, less dense canopy than southern riparian forest, and is dominated by shrubs and small trees, such as mule fat, tamarisk (*Tamarix* sp.), and willows. Herbs observed in this habitat include willow herb (*Epilobium ciliatum* subsp. *ciliatum*), watercress (*Nasturtium officinale*), curly dock (*Rumex crispus*), and bulrushes (*Schoenoplectus acutus* var. *occidentalis, S. pungens*). The southern riparian scrub appeared to be in fairly good condition, although non-native weeds including tamarisk and giant reed (*Arundo donax*) were observed. Southern riparian scrub also is considered a sensitive habitat under local, state, and federal definitions because of its wetland and wildlife value and scarcity.

Coast Live Oak Woodland

An approximately 0.21-acre patch of coast live oak woodland habitat occurs near the northern end of the Project site. Coast live oak woodland habitat is characterized by a canopy of coast live oak (*Quercus agrifolia*) and typically occurs on north-facing slopes and shaded ravines (Holland 1986). Shrubs and herbs observed in the low-diversity understory included common bedstraw (*Galium aparine*), non-native milk thistle (*Silybum marianum*), and western poison oak. The small patch of oak woodland on site has been moderately disturbed through invasion of non-native species in the understory. Oak woodlands are considered sensitive because of their scarcity and wildlife value.

Diegan Coastal Sage Scrub

Approximately 3.12 acres of Diegan coastal sage scrub occurs within the northern and southern portions of the Project site, and approximately 0.24 acre occurs along the proposed off-site improvement location of Old Highway 395/Pala Mesa Drive. Diegan coastal sage scrub occurs in coastal southern California and is characterized by low-density drought-deciduous shrubs, such as coastal sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), and true sages (*Salvia* spp.) on low-moisture sites (Holland 1986, Schoenherr 1992). Coastal sage scrub on site is limited to one area at the north end of the site, and is somewhat isolated from other uplands by I-15 to the west and riparian woodland to the north and east. The dominant coastal sage scrub shrubs on the Project site are coastal sagebrush, California buckwheat, and coyote brush (*Baccharis pitularis* subsp. *consanginea*). Less common native species included California everlasting (*Pseudognaphalium californicum*), giant wild rye (*Elymus condensatus*), laurel sumac (*Malosma laurina*), and climbing milkweed (*Funastrum cynanchoides* subsp. *hartwegii*). This patch of coastal sage scrub is not in good condition. Most of the coastal sagebrush shrubs are old and broken, ground cover between the shrubs is dominated by non-natives, and a high number of coyote brush shrubs indicates disturbance. Although the on-site habitat is not considered to be high quality, Diegan coastal sage scrub is considered sensitive because it supports many sensitive plant and animal species regionally, and because it is generally declining in abundance.

Non-native Grassland

Approximately 45.5 acres of non-native grassland occur throughout the Project site. In addition, approximately 4.5 acres occur off site in association with roadway improvements to Pankey Road, SR-76, and Old Highway 395/Pala Mesa Drive. Non-native grassland is an herbaceous habitat dominated by annual non-native grasses such as oats (*Avena* spp.), non-native brome grasses (*Bromus* spp.), and non-native broadleaf species, such as filaree (*Erodium* spp.) and mustards (*Brassica* spp., *Hirschfeldia incana*). It is distinguished from native grassland by having 20 percent or less cover of native perennial grass species (County 2002). Non-native grassland on site is dominated by oats, non-native brome grasses, tocalote (*Centaurea melitensis*), filaree, sweet fennel (*Foeniculum vulgare*), short-pod mustard, barley (*Hordeum marinum* subsp. *gussoneanum*), and scattered native species, such as telegraph weed (*Heterotheca grandiflora*), lupines (*Lupinus concinnus, L. bicolor*), valley popcorn flower (*Plagiobothrys canescens*), and wreath plant (*Stephanomeria* sp.). Most of the non-native grassland on site is regularly mowed or disked to maintain a fuel management zone around the model airplane runway. Non-native grassland is not a native habitat type, but is still considered sensitive by the County because it is of value for foraging raptors and small mammals.

Pasture

Approximately 0.58 acre of pasture occurs in off-site improvements areas associated with Pankey Road. This area adjacent to Pankey Road is currently being grazed. Bare ground and non-native vegetation, such as brome grasses, oats, filaree, and mustard dominate this area. This habitat type is considered sensitive by the County because it is of value for foraging raptors and small mammals.

Agriculture/Orchard

Approximately 3.25 acres of agriculture/orchard occur within the Project site, and approximately 0.77 acre occurs in off-site improvements areas associated with SR-76. Abandoned remnants of citrus orchards and avocado trees occur in the northern section of the site, and an active citrus orchard occurs in the southeastern parcel. The abandoned orchard understory is dominated by non-native herbs, such as brome grass, Italian thistle (*Carduus pycnocephalus* subsp. *pycnocephalus*), tocalote, sweet fennel, and castor bean (*Ricinus communis*), with scattered native herbs and shrubs. The sparse understory in the active orchard includes non-natives, such as showy chloris (*Chloris virgata*), crowfoot grass (*Dactyloctenium aegyptium*), and common purslane (*Portulaca oleracea*). This habitat type is not biologically sensitive.

Eucalyptus Woodland

Approximately 0.57 acre of eucalyptus woodland occurs in one area within the northern end of the Project site. Eucalyptus woodland is a woodland habitat dominated by non-native eucalyptus trees (*Eucalyptus* spp.). The understory, typically sparse due to eucalyptus leaf litter, includes ripgut grass (*Bromus diandrus*), wild cucumber (*Marah macrocarpa*), and smilo grass (*Stipa miliacea* var. *milacea*). This habitat is not considered sensitive; however, it provides valuable roosting and nesting opportunities for raptors.

Ornamental Non-native

Approximately 0.4 acre of ornamental non-native habitat occurs within the eastern portion of the Project site to the north of SR-76. In addition, approximately 0.32 acre of this habitat is present within the off-site improvement areas associated with Pankey Road and Old Highway 395/Pala Mesa Drive. Ornamental non-native areas are dominated by ornamental plant species, and are frequently associated with historical residences. The area of ornamental non-native habitat on site is located along the access road in the northern parcel, and is dominated by several large, old Peruvian pepper trees (*Schinus molle*). Other species in this area include Italian thistle, eucalyptus, horehound (*Marrubium vulgare*), mission prickly-pear (*Opuntia ficus-indica*), and greater periwinkle (*Vinca major*). This habitat is not considered sensitive.

Disturbed Land

Approximately 39.48 acres of disturbed land occur within the Project site. In addition, approximately 2.45 acres of this habitat occur within the off-site improvement areas associated with Pankey Road and Old Highway 395/Pala Mesa Drive. Disturbed land in the northern portion of the Project site consists of land cleared for fuel management around the entry drive and model airplane runway, and includes the runway and associated parking area, which contains a dirt remote control car track. This area has been repeatedly disked and cleared for fuel management, and contains low growth of primarily non-native annual grasses and forbs. A linear area of disturbance is also associated with work by the Rainbow Municipal Water District to replace manholes and improve a gravel access road along the eastern boundary of the Project site adjacent to the creek. Disturbed land in the southern portion of the site consists of a triangle of bare land between the road and the orchard, and is mostly bare soil with scattered non-native grasses and forbs. Typical species of these areas include oats, non-native brome grasses, filaree, short-pod mustard, burclover (*Medicago* sp.), and wild radish (*Raphanus sativus*), but not to an extent that would justify classifying it as non-native grassland. This habitat type is not sensitive within the County.

Developed

Approximately 2.41 acres of developed land associated with paved Pankey Road occurs within the Project site. In addition, approximately 8.92 acres of developed areas off site consist of paved roadway associated with SR-76, Pankey Road, Shearer Crossing, Old Highway 395, and Pala Mesa Drive. This habitat type is not sensitive.

Jurisdictional Wetlands/Waters

The Project site contains jurisdictional drainages subject to regulation by the ACOE, CDFW, and County. The site does not contain any vernal pools. The ACOE regulates wetlands and Waters of the U.S. protected under Section 404 of the Clean Water Act; the CDFW regulates certain drainages and/or wetlands protected under the Fish and Game Code; and the County regulates wetlands through its RPO. On-site drainages were evaluated for potential jurisdictional status. The report summarizing findings is provided in Appendix G of the Biological Technical Report (EIR Appendix G).

Impacts to wetlands would require consultation and approvals from federal and state agencies, including a Section 404 Permit from the ACOE, 401 Certification from the RWQCB, and a 1602 SAA from CDFW.

ACOE Jurisdiction

Through implementation of the Clean Water Act (CWA), the ACOE claims jurisdiction over waterways that are, or drain to, "Waters of the United States," or "waters." The definition of "waters" includes (but is not limited to) inland waters; lakes, rivers, and streams that are navigable; tributaries to these waters; and wetlands adjacent to these waters or their tributaries. The jurisdictional limit of non-wetland waters (i.e., creeks and drainages) is the ordinary high water mark. The jurisdictional limit of wetlands is the upper limit of the wetland. Delineations of wetland limits were conducted for the Project according to the procedures found in the Wetlands Delineation Manual (ACOE 1987).

ACOE wetlands must satisfy criteria to three parameters: vegetation, soils, and hydrology. If any one parameter does not contain a positive wetland indicator, the site is not an ACOE jurisdictional wetland. Projects may be permitted on an individual basis or may be covered under one of several approved nationwide permits. Individual permits are required when more than 300 linear feet of drainages, more than 0.5 acre of wetlands, or any vernal pools would be impacted.

A jurisdictional delineation was performed on site according to ACOE wetland delineation guidelines. All areas with depressions or drainage channels were evaluated for the presence of Waters of the U.S., including jurisdictional wetlands. If an area was suspected of being a wetland, vegetation and hydrology indicators were noted, and a soil pit was dug and described. The area was then determined to be a federal (ACOE) wetland if it satisfied the three wetland criteria (vegetation, hydrology, and soil). In most cases, two sample points were evaluated, one inside the suspected wetland, and one where the hydrology and/or vegetation criteria were not satisfied. Drainages lacking evidence of wetland hydrology (i.e., inundation for more than five percent of the growing season) were considered non-wetland Waters of the U.S.

ACOE jurisdictional areas on site include the main drainage channels from bank to bank (as Waters of the U.S.), as well as some areas qualifying as ACOE wetlands, all within the riparian canopy (Figure 2.6-2, Jurisdictional Delineation/Impacts). Approximately 9.16 acres of ACOE wetlands and waters occur on site, and 0.59 acre of ACOE wetlands occurs within off-site improvement areas.

CDFW Jurisdiction

Under Section 1600 of the California Fish and Game Code, a project applicant may not substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of any river, stream, or lake, or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake, unless CDFW receives written notification regarding the activity. After said notification is complete, the CDFW must determine whether the activity may

substantially adversely affect an existing fish and wildlife resource. If it determines that the activity may have that effect, CDFW must provide a draft agreement (SAA) to the project applicant, describing the fish and wildlife resources that may be threatened and identifying measures to protect those resources. The Project Applicant would be required to apply for and receive approval of that SAA from CDFW.

A field determination of CDFW jurisdictional boundaries is based on the presence of a channel with a bed and bank(s) and potential riparian vegetation. Jurisdiction usually extends to the top of bank or the outer edge of riparian vegetation, whichever is wider.

The Horse Ranch Creek drainage and its larger tributaries fall under jurisdiction of CDFW to the outer edges of riparian vegetation (Figure 2.6-2). Approximately 9.16 acres of ACOE wetland and 15.57 acres of CDFW jurisdictional areas occur on site.

County Jurisdiction

The County's RPO is more restrictive than the ACOE's criteria. Under the RPO, a wetland must only meet one of the following criteria in order to be classified as a wetland: (1) at least periodically the land supports predominantly hydrophytes (plants whose habitat is water or very wet places); (2) the substratum is predominantly undrained hydric soils, or (3) an ephemeral or perennial stream is present, the substratum of which is predominantly non-soil, and such lands contribute substantially to the biological functions or values of wetlands in the drainage system.

On July 23, 2004, the San Diego County Planning Commission granted an exemption to RPO requirements to Campus Park West. (Parcels for which Tentative Maps were recorded prior to 1988 are expressly exempted from the RPO.) The Project's RPO exemption was granted due to the fact that the Project site is located within the Campus Park/Hewlett Packard Specific Plan area, which was approved in 1983 but never constructed. Additionally, the Planning Commission determined that the on-site wetlands were present due to runoff from the westerly golf course and the easterly agricultural activities. As part of the exemption, the proposed roadways were moved to the outer boundaries of the wetlands, reducing impacts beyond the originally approved project. The exemption findings are listed in Appendix H of the Biological Technical Report (EIR Appendix G). Therefore, the Proposed Project is in conformance with the Planning Commission's exemption and no further RPO analysis or mitigation is required. Nonetheless, it should be noted that mitigation of sensitive resources is proposed in accordance with the RPO.

Plant Species

A total of 206 plant species were observed on site during biological resources surveys, including 102 non-native species (4 of which are considered highly invasive) and 104 native species (refer to Appendix A of the Biological Technical Report [EIR Appendix G] for a complete list of identified plants species).

Sensitive Plant Species

One sensitive plant species was observed on site, Palmer's sagewort (*Artemisia palmeri*). This species is listed as California Native Plant Society (CNPS) List 4[1] and is a County Group D plant species. It is not federally or state listed. Palmer's sagewort ranges from San Diego County to Baja California, and can be found in chaparral, coastal scrub, riparian scrub, and riparian woodland at elevations of 50 to 3,000 feet. Palmer's sagewort has declined due to human impacts to drainages and rivers. Approximately 83 individuals were observed in the northern end of the site within Diegan coastal sage scrub and non-native grassland, near riparian habitat. It should also be noted that, during a field survey conducted in April 2013, Palmer's sagewort was not observed in the described area. The Biological Technical Report notes that the previously observed plants may have been eradicated during the 2007 Rice Canyon fire, as the associated habitat was burned, with additional disturbance potentially resulting from related fire-fighting activities.

A list of sensitive plants with the potential to occur on site is included as Appendix C of the Biological Technical Report (EIR Appendix G). Based on the results of site visits and review of California Natural Diversity Database (CNDDB) and CNPS information, no other sensitive plant species have a high potential to occur on site.

Animal Species

Seventy-three animal species were documented within the Project site. A complete list of observed animal species is provided in Appendix B of the Biological Technical Report (EIR Appendix G).

Invertebrates

Seventeen invertebrate taxa were observed on site, including butterflies, ants, bees, and crickets. The most common butterflies were mourning cloak (*Nymphalis antiopa*), western tiger swallowtail (*Papilio rutulus*), and whites (Subfamily Pierinae), which were observed in agricultural land, Diegan coastal sage scrub, non-native grassland, and southern riparian forest. Other common invertebrates on site include ants (Family Formicidae), bees (Family Apidae), California harvester ants (*Pogonomyrmex californicus*), and crickets (Family Gryllidae).

Amphibians

Two amphibian species – the California treefrog (*Hyla cadaverina*) and the Pacific treefrog (*H. regilla*) – were observed on site in and near Horse Ranch Creek during site surveys. Unidentified tadpoles also were observed.

[1] CNPS List 4 indicates a watch list for species of limited distribution, and needs monitoring for changes in population status.

Reptiles

Five reptile species were observed on site in Diegan coastal sage scrub, non-native grassland, and southern riparian forest habitat during biological resources surveys, including common side-blotched lizard (*Uta stansburiana*), orange-throated whiptail (*Cnemidophorus hyperythrus*), San Diego alligator lizard (*Elgaria multicarinata*), southern Pacific rattlesnake (*Crotalus viridis*), and western fence lizard (*Sceloporus occidentalis*).

Birds

Forty-three bird species was observed throughout the Project site. Southern riparian forest supported noticeably more birds than other habitats. The most common species were American crow (*Corvus corax*), bushtit (*Psaltriparus minimus*), common yellowthroat (*Geothlypis trichas*), lesser goldfinch (*Carduelis psaltria*), mourning dove (*Zenaida macroura*), and song sparrow (*Melospiza melodia*). Sensitive and special status bird species observed at the site are discussed below.

Mammals

Evidence of five mammal species was observed on site in the non-native grassland and southern riparian forest, including California ground squirrel (*Spermophilus beecheyi*), coyote (*Canis latrans*; scat), desert cottontail (*Sylvilagus audubonii*), domestic dog (*Canis domestica*), and dusky-footed woodrat (*Neotoma fuscipes*; nests).

Sensitive Animal Species

Seven sensitive animal species were observed on or over the site during REC's surveys: orange-throated whiptail, least Bell's vireo, white-faced ibis (*Plegadis chihi*), yellow warbler (*Dendroica petechia*), yellow-breasted chat (*Icteria virens*), turkey vulture (*Cathartes aura*), and red-shouldered hawk (*Buteo lineatus*). In addition, other raptors were observed on or above the site. These species are discussed below.

A list of sensitive animals with the potential to occur on site is included as Appendix D of the Biological Technical Report (EIR Appendix G).

Orange-throated Whiptail (Cnemidophorus hyperythrus)

The orange-throated whiptail, a California Species of Special Concern, is a slender, quick lizard that lives in coastal sage scrub, chaparral, grasslands, and riparian areas and eats insects and spiders. One orange-throated whiptail was observed on site along the open edge of southern riparian forest habitat adjacent to the I-15 right-of-way (Figure 2.6-1).

Least Bell's Vireo (Vireo bellii pusillus)

The least Bell's vireo is a small migratory songbird that breeds in willow-dominated communities during the summer months. This species, imperiled by loss and degradation of

habitat, as well as brown-headed cowbird (*Molothrus ater*) nest parasitism, is listed as state and federal endangered. During the 2004 series of eight protocol presence/absence surveys conducted on site, at least seven least Bell's vireos, including a pair, were detected in Horse Ranch Creek and one of its northern tributaries. General locations of these observations are shown in Figure 2.6-1. Three individuals were observed on site; the others were very close to the site boundary and probably predominantly use off-site habitat.

An additional protocol survey for the least Bell's vireo was conducted for the adjacent Campus Park Project (TM 5538) in the spring/summer of 2012. Survey included the riparian habitat immediately east of the Campus Park eastern boundary and encompassed the east-west tributary of southern riparian forest in the northern portion of the Proposed Project site. The locations of previously identified least Bell's vireos on Campus Park were confirmed by the 2012 survey. Least Bell's vireos utilize the riparian forest along Horse Ranch Creek and were observed along the eastern boundary of the Campus Park West Project site that supports this habitat type. The 2012 report is included as Appendix E of the Biological Technical Report (EIR Appendix G).

Southwestern Willow Flycatcher (Empidonax traillii extimus)

The southwestern willow flycatcher, a state and federally endangered species, is a small songbird with a grayish-green back and wings, whitish throat, gray-olive breast, and pale, yellowish belly. Similar to least Bell's vireo, the southwestern willow flycatcher is a resident of riparian scrub and riparian woodland along river and stream courses; including vegetation dominated by willows, tamarisks and coast live oak. Dense willow thickets are preferred for nesting.

In 2011, two southwestern willow flycatchers were detected by Natural Resource Consultants during USFWS protocol surveys along Horse Ranch Creek and were determined to be a pair. No breeding activity could be determined during the survey observations. In 2012, one southwestern willow flycatcher was detected in a similar area (see Figure 3 of Appendix G). This bird was not seen, but was heard repeatedly calling at several spots in a line along the edge of the western riparian area. The possibility that this bird was a similar-sounding gray (*E. wrightii*) or dusky (*E. oberholseri*) flycatcher cannot be dismissed; however, it is not likely that one of these montane or submontane species would be in the lowlands in suitable southwestern willow flycatcher habitat in early July (NRC 2013).

White-faced Ibis (Plegadis chihi)

The white-faced ibis, a California Species of Special Concern, historically bred throughout California, but due to destruction of habitat is not known to breed in the state any longer. Coastal southern California supports a wintering population, including a group near Oceanside, but these birds also are threatened by habitat loss. A pair of white-faced ibises was observed flying over the site from the direction of the San Luis Rey River but probably do not use the site due to lack of habitat.

Yellow Warbler (Dendroica petechia)

The yellow warbler, a California Species of Special Concern, was historically a common, locally abundant summer resident in riparian woodlands throughout California, but current populations are substantially reduced and, in some areas, extirpated. The decline in numbers can be attributed to loss of habitat and to susceptibility to brown-headed cowbird parasitism. One yellow warbler was observed in the southern portion of the Project site (Figure 2.6-1).

Yellow-breasted Chat (Icteria virens)

The yellow-breasted chat, a California Species of Special Concern, was historically a common summer resident in southern California riparian woodlands but has declined due to loss of habitat and possibly other factors such as brown-headed cowbird parasitism. At least three were detected along the northeastern edge of the Project site (Figure 2.6-1). An additional observation of this species occurred during the previously noted 2012 least Bell's vireo survey for adjacent Campus Park.

Turkey Vulture (Cathartes aura) and Other Raptors

The turkey vulture is a large scavenger that is usually seen soaring in the sky, perched on dead trees, posts, and carrion, and on the ground. Although this species is not state or federally listed, it is of special interest to the County (a County Group I species).

Raptors, as a group, are protected from take, possession, or destruction by Fish and Game Code Section 3503.5 even if they are not individually considered sensitive. Raptors observed on site include American kestrel (*Falco sparverius*), red-shouldered hawk (*Buteo lineatus*), red-tailed hawk (*Buteo jamaicensis*), and turkey vulture. Although not listed by CDFW as a sensitive species, the turkey vulture and red-shouldered hawk are Group 1 County of San Diego animal species. County of San Diego Group 1 animals include those that have a very high level of sensitivity, either because they are listed as threatened or endangered or because they have very specific habitat requirements that must be met. One active hawk nest was observed off site in the adjacent property, in the southern riparian forest located near the eastern boundary.

Other Focused Surveys

As previously stated, focused protocol surveys were performed on site for coastal California gnatcatcher and southwestern arroyo toad in 2004. Neither species was detected on site during these surveys. An additional focused protocol survey for the coastal California gnatcatcher was initiated in the spring of 2013. The formerly mapped areas of coastal sage scrub on this property are small and isolated, and the largest area of this habitat (located on a knoll in the northern tip of the project) has apparently not fully recovered from the 2007 Rice Canyon Fire. The area is bounded by I-15 to the west, Palomar College (new construction) to the north and dense riparian woodland on site. The vegetation is sparse and does not appear to support the coastal California gnatcatcher. It is unlikely given the surrounding habitat types and the density of non-native grasses in the area that this area would regenerate effectively as coastal sage scrub habitat suitable for the coastal California gnatcatcher. The closest location of occupied habitat is

approximately one mile north on the Campus Park property. There is no suitable habitat between that location and the on-site disturbed habitat to act as an adequate corridor for the gnatcatcher to disperse to this location.

Arroyo toads are known to occur in San Luis Rey River, west of I-15 and upstream. The southern portion of the Project site between San Luis Rey River and SR-76 has been repeatedly disturbed for fuel maintenance and orchard operation. Although toads are thought to disperse up to 0.6 mile away from breeding habitat, the upland areas on the Project site are continuously disrupted such that aestivation of toads in these areas is unlikely. Dispersal from San Luis Rey River to the property would require the toad to either traverse the property south of SR-76, cross SR-76 either over the pavement or through culvert, and then traverse rip rap slope and/or steep 1:1 embankment. In addition during a meeting with USFWS representatives regarding the adjacent Campus Park project (TM 5538) on December 4, 2012, USFWS staff indicated that the habitat in this area was not suitable for the arroyo toad. Accordingly, additional arroyo toad surveys are not required in this area. Per SanBIOS, the closest recorded observation of the arroyo toad is 3.25 miles to the south of the Project site.

A focused habitat assessment for Stephens' kangaroo rat was conducted on site. Based on the survey, the site was determined to have suitable habitat. The site's distance, however, from known occurrences of this species (approximately 5.75 miles to the northwest in the town of Fallbrook) makes it unlikely that the Project site would support Stephens' kangaroo rat. (Refer to Appendix D of the Biological Technical Report [EIR Appendix G] for a list of sensitive animals with the potential to occur on site).

Habitat Connectivity and Wildlife Corridors

Wildlife corridors and linkages are critical to the regional conservation of sensitive species as they allow populations to access appropriate habitat and to expand. A wildlife linkage is an area of land that supports or contributes to the long-term movement of wildlife and genetic exchanges by providing live-in habitat that connects to other habitats. A wildlife corridor is a specific route that is used for movement and migration of species. A corridor may represent a smaller or narrower avenue for movement, generally consisting of local pathways connecting short distances usually covering one or two main types of vegetation communities. Wildlife linkages are landscape-level connections between very large core areas. They generally span several thousand feet and cover multiple habitat types.

Figure 2.6-3, Wildlife Movement, identifies wildlife corridors within the vicinity of the project site. As shown in this figure, the closest local wildlife corridor is directly off site to the east within Horse Ranch Creek. The riparian area on site along Horse Ranch Creek would be maintained within the on-site open space easement along the eastern boundary of the Project site.

The closest regional wildlife corridor traverses the southernmost portion of the Project site, along the San Luis Rey River. (This section is in PA 6, to be wholly retained in open space.) The upland portions of the site have historically been under agriculture and contain very little native vegetation. There is little to no direct habitat connection through the project site between the San Luis Rey River to the south and the coastal sage scrub habitat to the north of the site. The

southeastern portion of the site that functions as a limited regional wildlife corridor is located within the riparian habitat along the adjacent creek, and would be protected as open space. (This drainage only leads to pastureland to the north, however, so it provides little value as a regional wildlife corridor.)

On-site coastal sage scrub is limited to one area at the north end of the site, and is somewhat isolated from other uplands by I-15 to the west and the riparian woodland to the north and east. The on-site patch of coastal sage scrub is not in good condition as most of the coastal sagebrush shrubs are old and broken, ground cover between the shrubs is dominated by non-natives, and a large amount of coyote brush shrubs indicates disturbance. However, significant stands of coastal sage scrub occur northeast of the Project site near Rice Canyon. Rice Canyon is less than one mile east of the project site and currently is comprised of sparse rural development. This off-site area provides vegetation cover ideal for movement of wildlife species to hide from predators, forage for food, and breed and nurture their young. In addition, some off-site areas along I-15 include small to medium sized patches of coastal sage scrub that form a series of habitat "stepping stones" ideal for foraging birds. California gnatcatchers are known to occur within these "stepping stone" patches of coastal sage scrub habitat along I-15 (County 2004, USFWS 2004).

On-site coastal sage scrub is not considered a viable or utilized wildlife corridor for a variety of reasons, including its poor condition and isolation. The 2004 protocol survey for the California gnatcatchers did not detect any California gnatcatchers on the site. When compared to the Project site, both Rice Canyon and off-site I-15 "stepping stone" linkages provide higher quality habitat and unobstructed development; creating feasible wildlife corridors, adequate foraging, and vegetation cover sufficient for protection from predators.

2.6.1.2 *Regulatory Framework*

Federal

Federal Endangered Species Act

Administered by the USFWS, the federal Endangered Species Act (ESA) provides the legal framework for the listing and protection of species (and their habitats) identified as being endangered or threatened with extinction. Actions that jeopardize endangered or threatened species and the habitats upon which they rely are considered a 'take' under the ESA. Section 9(a) of the ESA defines take as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct." "Harm" and "harass" are further defined in federal regulations and case law to include actions that adversely impair or disrupt a listed species' behavioral patterns.

Sections 4(d) and 7 of the federal ESA regulate actions that could jeopardize endangered or threatened species. A special rule under Section 4(d) of the ESA authorizes take of certain protected species under approved state NCCP programs (also administered by the states). The County participates in a 4(d) program relative to Diegan coastal sage scrub. Section 7 describes a process of federal interagency consultation for use when federal actions may adversely affect

listed species. A Section 7 consultation (formal or informal) is required when there is a nexus between listed species' use of the site and ACOE jurisdictional areas such as those that occur on the Project site. A Biological Assessment is required for any major construction activity if it may affect listed species. In such a case, take can be authorized via a letter of Biological Opinion, issued by the USFWS for non-marine related listed species issues. The only federally and/or state listed species located on site is the least Bell's vireo, and impacts to this species would require a Section 7 consultation if the Draft North County Multiple Species Conservation Program Subarea Plan has not been adopted by project completion.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) is a federal statute that prohibits the ability to "pursue, hunt, take, capture, kill, attempt to take, capture or kill, possess, offer for sale, sell, offer to purchase, purchase, deliver for shipment, ship, cause to be shipped, deliver for transportation, transport, cause to be transported, carry, or cause to be carried by any means whatever, receive for shipment, transportation or carriage, or export, at any time, or in any manner, any migratory bird, included in the terms of this Convention… for the protection of migratory birds… or any part, nest, or egg of any such bird." This statute allows the USFWS to enforce the prohibition of direct "taking" of active nests. Implementation of this law typically includes restrictions on development activities when sensitive nesting birds, including raptors, are present.

State

Endangered Species Act

The California ESA is similar to the federal ESA in that it contains a process for listing of species and regulating potential impacts to listed species. Section 2081 of the California ESA authorizes CDFW to enter into a memorandum of agreement for take of listed species for scientific, educational, or management purposes.

Native Plant Protection Act

The Native Plant Protection Act (NPPA) provides a process by which plants are listed as rare or endangered. The NPPA regulates collection, transport, and commerce in plants that are listed. The California ESA followed NPPA and covers both plants and animals that are determined to be endangered or threatened with extinction. Plants listed as rare under NPPA were designated as threatened under the California ESA.

Natural Community Conservation Planning Program

The objective of the NCCP Act, passed by the state of California in 1991, is to conserve natural communities and accommodate compatible land uses. The NCCP is broader in its orientation and objectives than the California and federal ESAs. These laws are designed to identify and protect individual species that have already declined significantly in number. The objective of the NCCP is to conserve natural communities (thereby also preserving the species that live in them) and accommodate compatible land uses. This pilot program is a cooperative effort

between the state and federal governments and numerous private partners. The focus of the California pilot program is the Diegan coastal sage scrub community of southern California. Diegan coastal sage scrub supports the federally listed threatened coastal California gnatcatcher and approximately 100 other potentially threatened or endangered species. The habitat is fragmented and distributed over more than 6,000 square miles, encompassing portions of San Diego, Orange, Riverside, Los Angeles, and San Bernardino counties.

For planning purposes, some these regions are organized into "subareas" that correspond to geographic boundaries of participating jurisdictions and/or landowners. In each subregion and subarea, a local lead agency coordinated the collaborative planning process. Working with landowners, environmental organizations, and other interested parties, the local agency oversees the numerous activities that compose the development of a conservation plan. The CDFW and USFWS provide the necessary support, direction, and guidance to NCCP participants in these functions. The County is participating in the NCCP and has an MSCP in place for southern and western portions of the County (County 1997).

RWQCB Certification

If an entity proposes to conduct any activity including, but not limited to, the construction or operation of facilities that may result in any discharge to Waters of the U.S., a 401 Certification must be obtained. The Project applicant would be required to apply for and receive approval of a 401 Certification from the RWQCB.

County

Draft North County Multiple Species Conservation Program Subarea Plan

The MSCP is a comprehensive, long-term habitat conservation plan that addresses the needs of multiple species by identifying key areas for preservation as open space in order to link core biological areas into a regional wildlife preserve. The total MSCP study area encompasses 582,243 acres, of which 43 percent (252,132 acres) is in the unincorporated areas of San Diego County. The County adopted an MSCP Subarea Plan on October 22, 1997 for the southwestern portion of the County, to meet the requirements of the NCCP Act of 1991 and the federal and state ESAs (County 1997). This Subarea Plan became effective March 17, 1998 with issuance of the Take Permit by the USFWS.

The Project site, while in an unincorporated area of the County, does not fall within the limits of the adopted MSCP Subarea Plan. The Project site falls, however, within the Draft North County Subarea of the MSCP, for which the County is currently processing a Subarea Plan.[2] Under the Draft North County Subarea of the MSCP, the Project is proposed within a hardline development area, as well as Pre-Approved Mitigation Area (PAMA). A hardline development area is an area negotiated within a project's boundaries with the resource agencies to allow development in conformance with the North County MSCP. Pursuant to the potential for the draft document to

[2] A preliminary draft of the North County Plan was released for public review on February 19, 2009. Based on comments received, a revised Plan, as well as a draft EIR/Environmental Impact Statement (EIS) is planned.

be approved prior to Project approval, the proposed hardline was confirmed during County and Applicant coordination with the resource agencies in September 2010.

At the present time, however, because the North County Segment of the MSCP does not apply due to its current draft status, conformance with the MSCP and associated Biological Mitigation Ordinance (BMO) are not required for the Proposed Project. Instead, the Project would be subject to the requirements of the NCCP and Section 4(d) of the federal ESA for impacts to Diegan coastal sage scrub. Pursuant to Section 4(d) of the federal ESA, as discussed above, impacts to Diegan coastal sage scrub are limited to five percent of the total acreage occurring within the County as of 1994, and require a Habitat Loss Permit (HLP), pursuant to Habitat Loss Ordinance 8365.

Resource Protection Ordinance

The RPO, effective October 10, 1991, as amended March 21, 2007, provides development controls for unique topography, ecosystems, and natural characteristics within the County deemed to be fragile, irreplaceable, and vital to the general welfare of the County's residents. The resources protected by the County under the RPO include wetlands and wetland buffers (addressed above under jurisdictional waters), steep slopes, sensitive habitat lands, floodways, floodplain fringe, and significant prehistoric and historic sites. The RPO requires that, prior to approval of tentative maps or major use permits, a Resource Protection Study must be completed and findings made relative to compliance with the provisions of the RPO. As noted above, on July 23, 2004, the San Diego County Planning Commission determined that the Campus Park West site (and adjacent Campus Park property) was exempt from the RPO requirements (PC7-23/RPO-Exemption) because a Tentative Map for the site was recorded prior to August 10, 1988, pursuant to Section 86.605(b).

2.6.2 Analysis of Project Effects and Determination as to Significance

All numbers and discussion are based on **Scenario 2** which has approximately 1.35 acres more impacts than **Scenario 1**. The majority of the issues discussed below are equally applicable to both **Scenarios 1** and **2**. This is because the potentially sensitive species may move from one location to another in the immediate vicinity; birds fly from one location to another, etc. The small size (approximately two acres overall) and location (their immediate proximity to PAs 2 and 5) of the **Scenario 2** parcels also result in there being no substantial difference from **Scenario 1**. Similarly, off-site utility pipelines, focused roadway improvements and potential pump station locations are identical for both scenarios. Overall, therefore, the discussions below apply to either scenario. Where impacts to vegetation type are called out, differences between the scenarios are clarified.

2.6.2.1 *Special Status Species*

Guidelines for the Determination of Significance

A significant impact to special status species would occur if the Proposed Project would:

1. Impact one or more individuals of a species listed as federally or state endangered or threatened.
2. Impact the survival of a local population of any County Group A or B plant species, a County Group I animal species, or a species listed as a state Species of Special Concern.
3. Impact the regional long-term survival of a County Group C or D plant species or a County Group II animal species.
4. Impact arroyo toad aestivation or breeding habitat.
5. Impact golden eagle habitat.
6. Result in a loss of functional foraging habitat for raptors.
7. Increase noise and/or nighttime lighting to a level above ambient proven to adversely affect sensitive species.
8. Impact the viability of a core wildlife area, defined as a large block of habitat (typically 500 acres or more not limited to project boundaries, though smaller areas with particularly valuable resources may also be considered a core wildlife area) that supports a viable population of a sensitive wildlife species or supports multiple wildlife species.
9. Increase human access or predation or competition from domestic animals, pests, or exotic species to levels that would adversely affect sensitive species.
10. Impact nesting success of sensitive animals (as listed in the County Guidelines for Determining Significance – Biological Resources) through grading, clearing, fire fuel modification, and/or noise generating activities such as construction.

Guidelines Source

These guidelines are based on the County Guidelines for Determining Significance – Biological Resources (June 30, 2009).

Analysis

On-site Resources

Federally and State Endangered and Threatened Species

The only federally and/or state listed species located on site during on-site surveys is the least Bell's vireo. Three of the observed locations of the least Bell's vireo would be directly impacted by the Project. There is also potential for indirect impacts to the species. Loss of three least Bell's vireo would be **significant**. **(Impact BI-1)**

State Species of Concern, County Group A and B Plant Species, and County Group I Animal Species

The following California Species of Special Concern were observed within the study area: orange-throated whiptail, white-faced ibis, yellow warbler, and yellow-breasted chat. The turkey vulture, a County Group I animal species, also was observed on site (although this species does not nest on site). No County Group A or B plant species were observed during surveys of the Project site.

The observed on-site location of an orange-throated whiptail would be impacted by the Project. Orange-throated whiptails are a species of special concern, but are not listed on federal or state threatened or endangered species lists. As such, the threshold is impacts resulting in threats to the survival of a local population. As noted above, this species occupies a number of different habitats, including scrub, riparian and grassland habitats, all of which remain in the immediate vicinity following Project implementation. As such, the loss of a single identified individual is considered adverse, but would not be anticipated to impact the survival of the local population. Therefore, impacts to the orange-throated whiptail would be **less than significant**.

The Proposed Project would **not impact** the observed locations of the on-site white-faced ibises, yellow warbler, and yellow-breasted chats.

County Group C and D Plant Species and County Group II Animal Species

The Project would directly impact the location of all 83 observed individuals of Palmer's sagewort on site. This species is a CNPS List/CPRP 4 and a County Group D plant species and these 83 plants would not represent a significant population in the region as it is known to grow abundantly throughout most of the inland streams and rivers. Palmer's sagewort is still relatively abundant along the San Luis Rey River and its tributaries. Since it grows abundantly adjacent to creeks, it should be an adequately protected species under the local, state and federal laws protecting wetland habitats. Therefore, protection of the wetland habitats under federal, state and local laws will further protect this species. In addition, the loss of 83 Palmer's sagewort individuals does not result in an impact to the regional long-term survival of this plant. Therefore, although impacts to Palmer's sagewort by the Project would be adverse, such impacts would be **less than significant**.

No other County Group C or D Plant and County Group II Animal would be impacted by construction of the Proposed Project.

Arroyo Toad

Arroyo toads require slow-moving ponded streams and rivers with sandy gravelly banks. The site contains no habitat suitable for the arroyo toad. The habitat on site is densely vegetated and when the creek flows, it does not pond. Arroyo toads are known to occur in the San Luis Rey River, west of I-15 and upstream of the Project site. The portion of the Project site between the San Luis Rey River and SR-76 has been repeatedly disturbed for fuel maintenance and orchard operation. Although toads are thought to disperse up to 0.6 mile away from breeding habitat, the

upland areas on the Project site are continuously disrupted such that aestivation of toads in these areas is unlikely. Impacts to arroyo toad would therefore be **less than significant**.

Golden Eagle

No golden eagles are known to occur on site or within 4,000 feet of the site. Accordingly, **no impacts** to golden eagles would occur as a result of Project development.

Raptor Foraging Habitat

A turkey vulture and other non-listed raptors were observed on or over the Project site. These species would lose up to 43.75 acres of foraging habitat (non-native grassland and pasture). The loss of non-native grassland and pasture would result in a **significant** impact to raptors. **(Impact BI-2)**

Indirect Impacts/Edge Effects

The Project has the potential to indirectly impact adjacent habitat through edge effects and incursion of trespassing people, runoff from development that may increase volume and velocity of flow to downstream habitat, increased noise and light, predation by pets, and invasive plant and pest species. The Project would incorporate design features including shielding and directing lighting to minimize light impacts on adjacent riparian habitat, and use of vegetative screening to block lighting from vehicular traffic headlamps; stabilization of dirt storage piles by chemical binders, tarps, fencing or other erosion control; salvage and stockpile of native topsoil (top three to five inches) within a disturbed on-site location; no buildings will be allowed within the limited building zones, Project landscaping inclusion of native vegetation and drought tolerant plant materials; compliance with seasonal grading restrictions during the rainy season (October 1 to April 30) for applicable locations/conditions; proposed prohibition of brushing, clearing, and grading activities during the avian breeding season (February 15 through August 31); installation of temporary protective fencing around the limits of grading/construction; and construction of permanent walls and/or fences between residences, other development or roadways to reduce indirect impacts to wildlife from noise, lighting and glare (with additional discussion of proposed wall/fence designs and locations provided in the Biological Technical Report [EIR Appendix G]). Most indirect impacts/edge effects are addressed through the above Project design considerations. The potential for pest predation, and need to confirm breeding season construction restrictions, as well as presence of a construction-period biological monitor, and implementation of the Project Resource Management Plan, on-site enhancement plan and off-site revegetation plan, result in indirect impacts/edge effects during both construction and over the long term being identified as potentially **significant. (Impact BI-3a)**

Core Wildlife Area

The Project would not impact the viability of a core wildlife area. Historically, the Project site has been used for agriculture. The northern portion of the site (north of SR-76) currently contains a model airplane airfield and a dirt model car track surrounded by a maintained fuel

management zone and undeveloped habitat. The southern portion (south of SR-76) contains citrus and undeveloped habitat and borders the San Luis Rey River, located to the south. This southern area has been used for off-road activity in recent years. Surrounding land uses include undeveloped land to the north and east, undeveloped and agricultural land to the south, and undeveloped land and I-15 to the west. Therefore, this area does not make up a block of 500 acres of undisturbed land and Project development would result in result in **less than significant** impacts. The closest local wildlife corridor is directly off site to the east within Horse Ranch Creek, which would be avoided by project design and buffered with signs and fencing.

Nesting Success

Similar to indirect impacts/edge effects overall, most adverse effects would be addressed through the above Project design considerations. The potential for pest predation, and need to confirm breeding season construction restrictions, as well as presence of a construction-period biological monitor, and implementation of the Project Resource Management Plan, on-site enhancement plan and off-site revegetation plan, result in indirect impacts/edge effects during both construction and over the long term being identified as potentially **significant**. **(Impact BI-3b)**

Off-site Resources

No special status species were observed within the portions of Campus Park and Meadowood where off-site potable water and sewage conveyance pipelines would be located in Horse Ranch Creek Road, or to the potential pump station locations at the northeast corner of SR-76/Pankey Road or in disturbed areas adjacent to I-15 and Old Highway 395 north of the Pala Mesa Drive bridge.

Other off-site facilities would include roadway improvements to SR-76, Pankey Road, Shearer Crossing, and the intersection of Old Highway 395/Pala Mesa Drive. Improvements to the Pankey Road Bridge will include potential construction techniques such as pile driving, which will result in increased construction noise. The Project would incorporate design features including prohibition of brushing, clearing, and grading activities which are noise generating activities during the avian breeding season (February 15 through August 31). Implementation of such design features would reduce potential impacts to **less than significant** levels. In addition no special status species were observed in the areas of proposed improvements. **No impacts** would occur.

2.6.2.2 *Riparian Habitat and Sensitive Natural Communities*

Guidelines for the Determination of Significance

A significant impact to riparian habitat or other sensitive natural communities would occur if:

11. Project-related grading, clearing, construction, or other activities would temporarily or permanently remove sensitive native or naturalized habitat (as identified in the County

Guidelines for Determining Significance – Biological Resources, excluding those without a mitigation ratio) on or off the Project site.

12. Any of the following would occur to or within jurisdictional wetlands and/or riparian habitats as defined by the ACOE, CDFW, and County: removal of vegetation; grading; obstruction, or diversion of water flow; adverse change in velocity, siltation, volume of flow, or runoff rate; placement of fill; placement of structures; construction of a road crossing; placement of culverts or other underground piping; any disturbance of the substratum; and/or any activity that may cause an adverse change in native species composition, diversity, and abundance.
13. The Project would draw down the groundwater table to the detriment of groundwater-dependent habitat, typically a drop of three feet or more from historical low groundwater levels.
14. The Project would increase human access or competition from domestic animals, pests, or exotic species to levels proven to adversely affect sensitive habitats.
15. The Project does not include a wetland buffer adequate to protect the functions and values of existing wetlands.

Guidelines Source

These guidelines are based on the County Guidelines for Determining Significance – Biological Resources (June 30, 2009).

Analysis

On-site Resources

Vegetation Communities/Habitats

Development of the Proposed Project under **Scenario 2** would impact 96.53 acres of habitat on site, including 7.56 acres of southern riparian forest, 3.31 acres of southern riparian scrub, 0.2 acre of coast live oak woodland, 2.03 acres of Diegan coastal sage scrub, 38.70 acres of non-native grassland, 3.25 acres of agriculture/orchard, 0.56 acre of eucalyptus woodland, 0.40 acre of ornamental non-native, 38.31 acres of disturbed land, and 2.21 acres of developed land (Table 2.6-1 and Figure 2.6-1). **Scenario 1** would reduce impacts to non-native grassland by 1.27 acres, southern riparian forest by 0.01 acre, disturbed habitat by 0.04 acre, and developed habitat by 0.03 acre in PA 5 and in the southeast corner of PA 2 where an entry monument could be installed in the northwest corner of the SR-76/Pankey Road intersection. Impacts to sensitive habitats, including southern riparian forest, southern riparian scrub, coast live oak woodland, Diegan coastal sage scrub, and non-native grassland, would be **significant**. **(Impacts BI-4a through e, respectively)**

Impacts to the non-sensitive habitats (i.e., agriculture/orchard, eucalyptus woodland, ornamental non-native, disturbed, and developed) would be **less than significant**.

Jurisdictional Wetlands/Waters

Impacts to jurisdictional wetlands would occur through filling, grading, and potential erosion within the Project site. The Proposed Project would impact 3.26 acres of ACOE wetland and 10.97 acres of CDFW jurisdictional area, on site. Impacts to ACOE and CDFW jurisdictional areas would be **significant**. **(Impact BI-5)**

Although RPO (County) wetlands also would be impacted, the Project is exempt from RPO, as determined by the County; therefore, impacts to RPO wetland would be **less than significant**.

Groundwater Table

The Project is not anticipated to draw down the groundwater table to the detriment of groundwater-dependent habitat, as there are no plans for wells or other activities known to cause draw down effects. Impacts would be **less than significant**.

Indirect Impacts

The Project has the potential to indirectly impact more habitat acreage through edge effects and incursion by human trespass. Proposed design features such as fencing, signage, and provision of a buffer between development and preserved habitat, however, would decrease this impact to **less than significant** levels.

Runoff from development may increase volume and velocity of flow through the adjacent riparian area, which could lead to increased erosion and degradation of the habitat. The Project would, however, include the incorporation of riprap and energy dissipater structures, which are expected to prevent potential indirect impacts related to increased runoff (see also the discussion of Hydrology in EIR Section 3.1.4). Impacts would therefore be **less than significant**.

The Project has the potential to increase human access and/or competition from pests or exotic plant species to levels proven to adversely affect sensitive habitats. The Project would incorporate design features (refer to Table 1-3), including a 25- to 100-foot buffer along the edge of riparian habitat and use of drought-tolerant plantings on adjacent manufactured slopes. Such design features would reduce potential impacts to **less than significant** levels.

Wetland Buffer

The Project does not include a wetland buffer adequate to protect the functions and values of existing wetlands. While wetland buffers varying in width from 25 feet to over 100 feet would be provided in most areas (depending on quality of habitat and adjacent uses), buffers are absent in some locations and manufactured slopes would locally encroach into low-quality non-native grassland and disturbed habitat areas within the 100-foot buffers in several areas. Specifically, the width of proposed buffers adjacent to areas adjacent to habitat occupied by least Bell's vireo would be less than 100 feet in some locations and the width adjacent to areas of unoccupied habitat would be less than 50 feet in some areas. Accordingly, impacts associated with wetland buffers would be **significant**. **(Impact BI-6)**

As stated above, the increased presence of landscaping and development may increase the population of Argentine ants into the proposed open space, including wetland buffer. Given that the proposed manufactured slopes adjacent to the open space would be planted with drought-tolerant species and the Project would implement an RMP as part of Project design, this impact is expected to be **less than significant**.

Off-site Resources

The Proposed Project would include off-site impacts to 1.1 acres of southern riparian forest, 0.24 acre of Diegan coastal sage scrub, 4.47 acres of non-native grassland, 0.58 acre of pasture, 0.77 acre of agriculture/orchard, 0.32 acre of ornamental non-native, 2.45 acres of disturbed land, and 8.92 acres of developed land. Impacts to sensitive habitats, including southern riparian forest, Diegan coastal sage scrub, non-native grassland, and pasture, would be **significant**. **(Impacts BI-4a, d, e, and f, respectively)**

In addition to roadway improvements to SR-76, Pankey Road, Shearer Crossing, and the intersection of Old Highway 395/Pala Mesa Drive which are discussed above, proposed off-site potable water and sewage conveyance pipelines would cross the Campus Park and Meadowood sites. These improvements would be located within roads. Horse Ranch Creek Road has already been graded to the width to support a four-lane facility, and SR-76 is already built out in this area. **No impacts** would occur.

A total of 1.26 acres of ACOE and CDFW jurisdictional wetland would be impacted off site. Impacts to ACOE and CDFW jurisdictional areas would be **significant**. **(Impact BI-5)**

2.6.2.3 *Wildlife Movement and Nursery Sites*

Guidelines for the Determination of Significance

A significant impact to wildlife movement or nursery sites would occur if the Proposed Project would:

16. Prevent wildlife access to foraging habitat, breeding habitat, water sources, or other areas necessary for their reproduction.
17. Substantially interfere with connectivity between blocks of habitat, or potentially block or substantially interfere with a local or regional wildlife corridor or linkage.
18. Create artificial wildlife corridors that do not follow natural movement patterns.
19. Increase noise and/or nighttime lighting in a wildlife corridor or linkage to levels proven to affect the behavior of the animals identified in a site specific analysis of wildlife movement.
20. Not maintain an adequate width for an existing wildlife corridor or linkage and/or further constrain an already narrow corridor through activities such as (but not limited to) reduction of corridor width, removal of available vegetative cover, placement of incompatible uses adjacent to it, and placement of barriers in the movement path.
21. Not maintain adequate visual continuity (i.e., long lines-of-sight) within wildlife corridors or linkage.

Guidelines Source

These guidelines are based on the County Guidelines for Determining Significance – Biological Resources (June 30, 2009).

Analysis

On-site Resources

The Project would not prevent wildlife access to foraging habitat, breeding habitat, nursery sites, water sources, or other areas necessary for their reproduction. Although a significant amount of non-native grassland and pasture would be developed (see Impacts BI-3e and f, above), these on-site habitats are not identified as necessary for reproduction or nursery sites of a sensitive species. The Project would provide areas of open space on site in order to protect the most sensitive and high quality biological resources on site. Any on site open space areas would be preserved with an easement and would be subject to an RMP. The open space areas provide contiguous blocks of foraging and breeding habitat, along with access to local water sources (because it would not substantially change blocks of valuable habitat), and will buffer potential nursery sites off site within Horse Ranch Creek.

The Project would not substantially interfere with connectivity between blocks of habitat, and would not substantially interfere with a local or regional wildlife corridor or linkage (due to the absence of the latter). The riparian habitat that would be placed within the on-site open space easement is the most likely area to support wildlife activity

As previously stated, the closest wildlife corridor is off site along the eastern boundary (refer to Figure 2.6-3). The Project would not create artificial wildlife corridors that do not follow natural movement patterns. It is anticipated that wildlife utilizing the riparian areas along the eastern boundary of the site would continue to do so as this area would be placed within an open space easement. The Project maintains adequate visual continuity (i.e., long lines-of-sight) within the partially on-site and off-site corridors.

The Project has the potential to indirectly impact habitat by the increase of noise and/or nighttime lighting in a wildlife corridor or linkage to levels proven to affect the behavior of the animals identified in a site-specific analysis of wildlife movement. The Project proposes 25- to 100-foot buffers to the on-site open space easement. In addition, the Project design would incorporate design features including shielded and directed lighting to minimize light impacts on adjacent riparian habitat; prohibition of brushing, clearing, and grading activities during the avian breeding season (February 15 through August 31); installation of temporary protective fencing around the limits of grading/construction; and construction of permanent noise and other walls and fences (as well as screening vegetation) between residences, other development or roadways to reduce indirect impacts to wildlife from noise, lighting and glare. Implementation of such design features would reduce potential impacts to **less than significant** levels.

The Project maintains an adequate width for an existing wildlife corridor or linkage and would not further constrain an already narrow corridor through activities such as (but not limited to)

reduction of corridor width, removal of available vegetative cover, placement of incompatible uses adjacent to it, and placement of barriers in the movement path. The width of the open space easement is adequate and preserves the highest quality of habitat on site in a contiguous manner.

In summary, Project impacts to wildlife corridors and nursery sites would be **less than significant**.

Off-site Resources

Proposed off-site potable water and sewage conveyance pipelines would be completely underground following installation. This would not affect wildlife movement through corridors or wildlife nursery sites over the long-term. Pump stations would be small in size and located within otherwise disturbed areas. Other off-site facilities would include improvements to existing roadways. These improvements would not affect wildlife movement through corridors or wildlife nursery sites. Impacts would be **less than significant**.

2.6.2.4 *Local Policies, Ordinances, and Adopted Plans*

Guidelines for the Determination of Significance

A significant impact would occur if the Proposed Project would:

22. Impact coastal sage scrub vegetation within lands outside of the MSCP in excess of the County's five-percent habitat loss threshold as defined by the Southern California Coastal Sage Scrub NCCP Guidelines.
23. Preclude or prevent the preparation of the subregional NCCP. (If, for example, the Project proposes development within areas that have been identified by the County or resource agencies as critical to future habitat preserves.)
24. Impact any amount of wetlands or sensitive habitat lands as outlined in the RPO.
25. Not minimize and/or mitigate coastal sage scrub habitat loss in accordance with Section 4.3 of the NCCP Guidelines.
26. Not conform to the goals and requirements as outlined in any applicable Habitat Conservation Plan, Habitat Management Plan, Special Area Management Plan, Watershed Plan, or similar regional planning effort.
27. Not minimize impacts to Biological Resource Core Areas (BRCAs) within lands in the MSCP, as defined in the BMO.
28. Preclude connectivity between areas of high habitat values, as defined by the Southern California Coastal Sage Scrub NCCP Guidelines.
29. Not maintain existing movement corridors and/or habitat linkages as defined by the BMO.
30. Not avoid impacts to MSCP narrow endemic species and would impact core populations of narrow endemics.
31. Reduce the likelihood of survival and recovery of listed species in the wild.
32. Result in the killing of migratory birds or destruction of active migratory bird nests and/or eggs (MBTA).

33. Result in the take of eagles, eagle eggs or any part of an eagle (Bald and Golden Eagle Protection Act).

Guidelines Source

These guidelines are based on the County Guidelines for Determining Significance – Biological Resources (June 30, 2009).

Analysis

On- and Off-site Resources

HLP Ordinance and NCCP Goals and Requirements

The Project site falls within the North County Subarea of the MSCP, for which the County is currently processing a Subarea Plan. Since this regional planning document is not yet approved, NCCP compliance would be required for upland impacts. Therefore, pursuant to the 4(d) rule of the federal ESA, impacts to coastal sage scrub are limited to five percent of the total acreage occurring within the County, and require an HLP pursuant to Habitat Loss Ordinance 8365. The Proposed Project would remove a total of 2.27 acres of Diegan coastal sage scrub (2.03 acres on site and 0.24 acre off site), which is considered a significant impact. While the Proposed Project would remove coastal sage scrub habitat, implementation of mitigation for this impact would ensure that the Proposed Project would ultimately comply with the NCCP guidelines.

The Project would not preclude or prevent the preparation of the subregional NCCP as the Project does not propose development within areas that have been identified by the County or resource agencies as critical to future habitat preserves. As part of the MSCP process, negotiations concerning the "hardline" preserve and development areas have resulted in concentrating development in the area of the site that was previously under agriculture and slated for future development. Significant biological resources adjacent to Horse Ranch Creek have been identified for preservation through an open space easement.

The Project would not preclude connectivity between areas of high habitat values, as defined by the Southern California Coastal Sage Scrub NCCP Guidelines. As part of the hardline process, connectivity has been closely examined for this Project. As a result, the upland portions of the project, which have historically been subject to agriculture and disturbance, would be utilized for development. The higher value riparian habitat along the creek along the eastern edge of the site would be protected in open space.

Accordingly, Project impacts related to the NCCP would be **less than significant**.

County Resource Protection Ordinance Wetlands

Although RPO wetlands are proposed to be impacted, an exemption from the RPO was approved for this Project in July 2004 by the County. Therefore, **no impacts** related to RPO wetlands would occur.

Narrow Endemic Species

As noted above, the Project falls under the North County Subarea of the MSCP, although this regional planning document (and any associated narrow endemic list) has not yet been approved. The Project is not subject to the approved South County MSCP and its narrow endemic species list. Based on the described conditions, **no impacts** to narrow endemic species would occur from Project implementation.

Migratory Bird Treaty Act and Bald and Golden Eagle Protection Act

The Project would not result in the killing of migratory birds or destruction of active migratory bird nests and/or eggs (per the MBTA). Although raptors were noted on site, including a nest in the southern riparian forest near the eastern Project boundary, **no impacts** to migratory birds or to their nests and/or eggs would result from the Project (because the applicant is legally required to comply with the MBTA) and the Project would be consistent with the MBTA.

The Project would not result in the take of eagles, eagle eggs, or any part of an eagle (per the Bald and Golden Eagle Protection Act). No eagles were observed during the biological surveys of the Project site. Accordingly, **no impacts** to eagles would result from the Project and the Project would be consistent with the Bald and Golden Eagle Protection Act.

As noted above, proposed off-site potable water and sewage conveyance pipelines would be located within roadbeds, and focused roadway improvements would similarly be located in disturbed transportation corridors. The potential pump stations have been sited in areas either already cleared through a certified Final EIR or previously disturbed in association with existing I-15 and Old Highway 395 development. Impacts to local policies, ordinances, and adopted plans would be **less than significant**.

2.6.3 Cumulative Impact Analysis

Guidelines for the Determination of Significance

A significant cumulative impact would occur if the Proposed Project would:

34. Have the potential to degrade the quality of the environment, substantially reduce the habitat of a wildlife species, cause a wildlife population to drop below self-sustaining levels, or threaten to eliminate a plant or animal community.
35. Have impacts that are individually limited, but cumulatively considerable.

Guidelines Source

These guidelines are based on the County Guidelines for Determining Significance – Biological Resources (June 30, 2009).

Analysis

Impacts that may not be considered significant on a project-specific level can become significant when viewed in the context of other losses in the vicinity of the project site. When evaluating cumulative impacts, CEQA states that "lead agencies should define the geographic scope of the area affected by the cumulative effect and provide a reasonable explanation for the geographic limitation used" (Section 15130[b][3]). The Project site is partially located in an eastern arm of the Northern Valley Humid Temperate Ecological Region and partially in the Northern Foothills Humid Temperate Ecological Region, as mapped by the County. The Project site is east of I-15 in the Pala Mesa Valley and watershed of the San Luis Rey River. The area is sparsely developed, consisting primarily of rural residential, active groves, and riparian habitats along the floodplain of the San Luis Rey River and its tributaries. Natural habitats of the region consist of sage scrubs, chaparrals, riparian and oak woodlands, and sandy washes. Areas that are important to the wildlife of the region include the San Luis Rey River corridor, large tracts of undeveloped coastal sage scrub to the east (Rice Canyon), and the coastal sage scrub/chaparral "stepping stone" areas west of I-15. Therefore, the Project's cumulative study area is within five miles of the site in the eco-region as discussed above.

The least Bell's vireo is known to occur throughout the San Luis Rey River, Santa Margarita River, San Diego River, Sweetwater River, and their tributaries. For this assessment, cumulative impacts to least Bell's vireo are assessed utilizing the San Luis Rey River corridor and its tributaries. Southwestern willow flycatcher is also associated with these drainages.

When analyzing cumulative impacts to wetlands, waters, and aquatic species, it is important to consider impacts within the watershed in which the project is located, as impacts outside the watershed would be less relevant. The area analyzed for the Proposed Project includes the San Luis Rey River watershed within the eco-region defined above from approximately Bonsall to Pala. Oak woodlands are included within this cumulative impact assessment area because the oak woodlands in the region are generally associated with minor tributaries to this river.

There are 95 private projects and one public works project (SR-76 widening and realignment as well as improvements to the interchange with I-15) in the vicinity of the Project site. Figure 2.6-4, Cumulative Projects for Biological Resources, shows the general locations of each project listed. Of these 95 projects, 87 are known to support biological resources similar to those found on the Project site. Projects not utilized in this analysis either did not support biological resources, were categorically exempt and therefore no information was available, or did not support the resources under consideration for the Proposed Project.

Cumulative Impacts to Sensitive Plants

The only sensitive plant species that would be impacted by the Project is Palmer's sagewort, a CNPS List/CRPR 4 and County Group D plant species. The 83 individual plants that would be impacted do not represent a significant population in the region as it is known to grow abundantly throughout most of the inland streams and rivers. This plant species is still relatively abundant along San Luis Rey River and its tributaries. In addition, protection of wetland habitats

under federal, state, and local laws, would further protect this species. Therefore, cumulative impacts to sensitive plant species are anticipated to be **less than significant**.

Cumulative Impacts to Sensitive Wildlife

Significant direct impacts to the observed location of three least Bell's vireos are expected to occur on site. The majority of the least Bell's vireo observed locations, and all observed locations of the southwestern willow flycatcher, however, are within the riparian habitat proposed to remain in open space. Least Bell's vireo occur in the major river systems of San Diego County and more locally to the Project site within Santa Margarita River, its tributaries, and San Luis Rey River as far east as Pala and as far west as Oceanside. These species are also is known to occur in Windmill and Pilgrim creeks. Per SanBIOS, the occurrences of the least Bell's vireo are attributed to the San Diego Bird Atlas. Observations of this species within the cumulative impact analysis study area are consistent with the identified river systems above. The population of least Bell's vireos in these riparian systems accounted for 74 percent of the total population in San Diego County in 1996 (Unitt 2004). Least Bell's vireos also are known to re-colonize within restored southern riparian forest habitat. Between 1978 and 1981, only 61 territorial males were noted throughout the County. By 1985, this number had increased to 223 and in 1996, to over 1,400 territorial males (Unitt 2004). The listing of the species and the protection of wetlands has dramatically reversed decline of this species. In addition, it should be noted that mitigation for wetland impacts requires creation of new habitat at a minimum 1:1 ratio and restoration of habitat at a 2:1 ratio in accordance with least Bell's vireo habitat. One of the success criteria for the created habitat shall be occupation by at least the same number of least Bell's vireos impacted by the Project. It should also be noted that unlike the Campus Park and Campus Park West projects, other projects within the cumulative impact analysis study area are subject to the RPO. As a result, riparian habitats within those project sites would likely be considered RPO wetlands and impacts to these areas would not be allowed. Due to the regional increase in population, the proposed habitat mitigation, and other applicable Project design features (e.g., buffers and barriers), the loss of three least Bell's vireo and their habitat would be a **less than significant** contribution to cumulative effects.

Cumulative Impacts to Riparian and Sensitive Habitats

Permanent impacts to sensitive habitats associated with the Proposed Project include impacts to southern riparian forest, southern riparian scrub, Diegan coastal sage scrub, coast live oak woodland, non-native grassland, and pasture. Of the 95 projects in the vicinity, 87 projects support one or more of these habitat types. Although adding to the cumulative loss of these habitats, these projects, like the Proposed Project, are required to set aside open space to protect impacted habitats. In the case of wetland habitats, mitigation is required at a minimum ratio of 1:1 creation and 2:1 restoration. This results in no net loss, and an increase in habitat quality. Due to the no net loss policy under federal, state, and County regulations, the Project's contribution to cumulative impacts to wetland habitats would be **less than significant**.

Most land in the Fallbrook and Pala Mesa areas is large-lot rural residential or undeveloped land that would be required to comply with the NCCP guidelines, and eventually the North County MSCP, thereby reducing or hindering the cumulative loss of sensitive upland habitats. Because

of the rural undeveloped nature of this region, cumulative impacts associated with the incremental loss of upland habitats, including Diegan coastal sage scrub, coast live oak woodland, non-native grassland, and pasture, are expected to be **less than significant**.

Cumulative Impacts to Jurisdictional Areas

As discussed under riparian habitats, above, there are numerous projects within the biological resources cumulative study area that support wetlands and waterways. The County RPO's restriction on wetland impacts and the federal and state implementation of a no net loss policy ensures that cumulative impacts to jurisdictional wetlands and/or waters would be **less than significant**.

Cumulative Impacts to Wildlife Movement and Nursery Sites

Because no significant wildlife corridors are identified on the Project site, the Proposed Project would **not contribute to cumulative impacts** to regional or local wildlife corridors or nursery sites.

Cumulative Impacts to Local Policies, Ordinances, and Adopted Plans

No significant impacts associated with compliance of local policies, ordinances, or adopted plans have been identified under the Proposed Project; therefore, the Project would **not contribute to cumulatively significant impacts** associated with local policies, ordinances, or adopted plans.

2.6.4 Significance of Impacts Prior to Mitigation

The following significant impacts related to biological resources would occur with Project implementation:

Impact BI-1 The location of three observed least Bell's vireos, a federally and state listed endangered species, would be directly impacted by the Project. There is also potential for indirect impacts to the species.

Impact BI-2 Raptors would lose up to 43.75 acres of foraging habitat (non-native grassland and pasture).

Impact BI-3a Potential indirect/edge effects could occur to habitat and associated sensitive species during Project construction and over the long term.

Impact BI-3b Potential indirect/edge effects could adversely impact nesting success during Project construction and over the long term.

Impact BI-4a Development of the Proposed Project would impact up to 8.66 acres of southern riparian forest, including 7.56 acres on site and 1.10 acres off site.

Impact BI-4b Development of the Proposed Project would impact 3.31 acres of on-site southern riparian scrub.

Impact BI-4c Development of the Proposed Project would impact 0.20 acre of on-site coast live oak woodland.

Impact BI-4d Development of the Proposed Project would impact 2.27 acres of Diegan coastal sage scrub, including 2.03 acres on site and 0.24 acre off site.

Impact BI-4e Development of the Proposed Project would impact 43.17 acres of non-native grassland, including 38.7 acres on site and 4.47 acres off site.

Impact BI-4f Development of the Proposed Project would impact 0.58 acre of off-site pasture.

Impact BI-5 The Proposed Project would impact 3.26 acres of ACOE wetland on site and 0.59 acre of ACOE wetland off site; and 10.97 acres of CDFWG jurisdictional area on site and 0.67 acre of CDFW jurisdictional area off site.

Impact BI-6 The Proposed Project would result in impacts associated with the adequacy of the wetland buffer to protect the functions and values of existing wetlands.

2.6.5 Mitigation

Mitigation is identified for each of the significant impacts identified above. Table 2.6-2, Summary of Required Mitigation for Impacts Associated with the Proposed Project, summarizes the amount of habitat impacted on and off the Project site, as well as the amount of required mitigation. Figure 2.6-5, Biological Open Space, shows the proposed open space areas for the Project site. The mitigation measures listed below would reduce Project impacts to biological resources to below a level of significance.

The mitigation outlined below for direct impacts to on- and off-site habitats includes preservation both on and off site, off-site creation of habitat, and on-site enhancement of habitat. Appendices K and L of the Biological Technical Report (EIR Appendix G) contains the conceptual mitigation plans for the Project, including the Conceptual On-site Wetland Enhancement Plan (REC 2013b) and the Conceptual Off-site Wetland Creation and Enhancement Mitigation Plan (REC 2013c), respectively. A conceptual RMP (REC 2013d; Appendix J of EIR Appendix G) also was prepared for the Proposed Project, and discusses short- and long-term management of the habitat to be preserved on site.

M-BI-1 The significant impacts to three least Bell's vireos will be mitigated through the creation, enhancement, and preservation of habitat occupied by the least Bell's vireo (refer to M-BI-4a and M-BI-4b for additional details). ~~The total acreage of riparian scrub and/or riparian forest habitat included as mitigation must be adequate to support at least three least Bell's vireo individuals.~~

M-BI-2 The loss of up to 43.75 acres of raptor foraging habitat (non-native grassland and pasture) will be mitigated through implementation of measures M-BI-4e and M-BI-4f, below.

M-BI-3a Indirect impacts to habitat and associated sensitive species shall be largely addressed through Project design features identified in this section and on Table 1-3 of this EIR. In addition, the following mitigation measures are required: the presence of a biological monitor during brushing, clearing and grading to ensure that construction activities remain within identified limits; implementation of the Resource Management Plan, on-site enhancement plan and off-site revegetation plan to ensure that appropriate ratios of habitat are retained; and confirmation of construction outside the breeding season. A Resource Avoidance Area (RAA) shall be shown on all plans identifying areas to be avoided during least Bell's vireo, southwestern willow flycatcher, and other nesting or breeding birds breeding season (February 1 to August 31). If avoidance is not possible, pre-construction surveys, noise monitoring and noise attenuation measures shall be utilized. Surveys shall be done to determine if any nests are located within 300 feet of brushing, clearing and/or grading activities. If nests are located within this distance, no brushing, clearing or grading shall be done in this area until the nests are no longer active or until temporary barriers adequate to ensure that noise does not exceed 60 dBA at the nests have been installed.

M-BI-3b Indirect impacts to nesting success shall be largely addressed through Project design features identified in this section and on Table 1-3 of this EIR. In addition, the following mitigation measures are required: the presence of a biological monitor during brushing, clearing and grading to ensure that construction activities remain within identified limits; implementation of the Resource Management Plan, on-site enhancement plan and off-site revegetation plan to ensure that appropriate ratios of habitat are retained; and confirmation of construction outside the breeding season. A RAA shall be shown on all plans identifying areas to be avoided during least Bell's vireo, southwestern willow flycatcher, and other nesting or breeding birds breeding season (February 1 to August 31). If avoidance is not possible, pre-construction surveys, noise monitoring and noise attenuation measures shall be completed as required in M-BI-3a.

M-BI-4a Significant **Scenario 2** direct impacts to 7.56 acres on site and 1.10 acres off site of southern riparian forest shall be mitigated at a 3:1 ratio, including 1:1 creation and 2:1 enhancement, for a total of 25.98 acres. **Scenario 1** impacts to southern riparian forest would total 7.55 acres on site and 1.10 acres off site, for a total of 8.65 acres. ~~Pending County approval,~~ These impacts shall be mitigated by the on-site preservation of a minimum of 10.93 acres (**Scenario 1**) and ~~up to~~ 10.95 acres (**Scenario 2**) of southern riparian forest ~~shall be preserved and enhanced on site~~. In addition, a minimum acreage of 8.66 creation and 6.37 enhancement (**Scenario 2**) or 8.65 creation and 6.35 enhancement (**Scenario 1**) of southern riparian forest shall ~~The remaining required acreage would~~ be created/enhanced off site. Off-site m~~M~~itigation acreage shall ~~either occur~~be located within a PAMA (if the NCMSCP has been adopted when the Project is approved), at an approved mitigation bank, or on

purchased~~any other~~ land that shall be managed by an RMP, as approved~~determined acceptable~~ by the Director of the County PDS.

M-BI-4b Significant direct impacts to 3.31 acres of southern riparian scrub shall be mitigated at a 3:1 ratio, including 1:1 creation and 2:1 enhancement, for a total of 9.93 acres. ~~Pending County approval, up~~ Up to 1.21 acres of southern riparian scrub shall be preserved and enhanced on site. The remaining required acreage ~~would~~ shall be created/enhanced off site. Off-site ~~M~~mitigation acreage shall ~~either~~ be located~~occur~~ within a PAMA (if the NCMSCP has been adopted when the Project is approved), at an approved mitigation bank, or on purchased~~any other~~ land that shall be managed by an RMP, as approved~~determined acceptable~~ by the Director of the County PDS.

M-BI-4c Significant direct impacts to 0.20 acre of coast live oak woodland shall be mitigated at a 3:1 ratio, for a total of 0.~~59~~ 6 acre preserved off site~~ and 0.01 acre preserved on site~~.

M-BI-4d Significant direct impacts to 2.27 acres of Diegan coastal sage scrub on and off site shall be mitigated at a 2:1 ratio, for a total of 4.54 acres. A total of 1.29 acres shall be preserved/restored on site and 3.25 acres shall be preserved off site. Off-site m~~M~~itigation acreage shall ~~either occur~~be located within a PAMA (if the NCMSCP has been adopted when the Project is approved), at an approved mitigation bank, or on purchased~~any other~~ land to be managed by an RMP, as approved~~determined acceptable~~ by the Director of the County PDS.

M-BI-4e Under **Scenario 2**, significant direct impacts to 43.17 acres of non-native grassland shall be mitigated at a 0.5:1 ratio, for a total of 21.59 acres. A total of 7.98 acres shall be preserved/restored on site and 13.61 acres shall be preserved off site. Under **Scenario 1**, significant direct impacts to 41.9 acres of non-native grassland shall be mitigated at a 0.5:1 ratio, for a total of 20.95 acres. A total of 7.98 acres shall be preserved/restored on site and 12.97 acres shall be preserved off site. Off-site ~~M~~mitigation acreage shall ~~either occur~~be located within a PAMA (if the NCMSCP has been adopted when the Project is approved), at an approved mitigation bank, or on purchased~~any other~~ land to be managed by an RMP, as approved~~determined acceptable~~ by the Director of the County PDS.

M-BI-4f Significant direct impacts to 0.58 acre of off-site pasture shall be mitigated at a 0.5:1 ratio, for a total of 0.29 acre preserved off site. Off-site ~~M~~mitigation acreage shall ~~either occur~~be located within a PAMA (if the NCMSCP has been adopted when the Project is approved), at an approved mitigation bank, or on purchased ~~any other~~ land to be managed by an RMP, as approved~~determined acceptable~~ by the Director of the County PDS.

M-BI-5 Significant direct impacts to southern riparian forest and southern riparian scrub shall require permits from the ACOE and CDFW as jurisdictional wetlands/waters and mitigation at a ratio of 3:1, with a minimum 1:1 creation component to ensure no net loss of wetlands. The Project shall include on-site preservation/enhancement of

12.16 acres of riparian habitat as described in the Conceptual On-site Wetland Enhancement Plan (Appendix K of EIR Appendix G) and creation/enhancement of additional wetland habitat off site as described in the Conceptual Off-site Wetland Creation and Enhancement Plan (Appendix L of EIR Appendix G; also see M-BI-4). Additional off-site mitigation will be provided for any of the proposed on-site habitat enhancement that is not accepted by the County.

M-BI-6 Significant, temporary impacts to low-quality non-native grassland and disturbed habitat areas from grading within the wetland buffers shall be mitigated through revegetation of the slopes with native (yet low fuel) vegetation. The revegetation of these slopes will provide higher quality buffer habitat to the adjacent riparian habitat, and the buffer areas shall be included in the Resource Management Plan to ensure that the sensitive resources of the adjacent habitat are protected.

2.6.6 Conclusion

Implementation of the Proposed Project would result in significant direct impacts to three least Bell's vireos (Impact BI-1). The acreage of restored, enhanced and created riparian scrub or riparian forest combined therefore must be adequate to support at least three least Bell's vireo individuals. Least bell's vireo territories range from 0.5 to 7 acres in size depending on density of the species in the area. To support one pair plus one additional individual, riparian habitat enhancement should be at least 1 to 14 acres (or two territories). The project would enhance 10.95 acres of on-site riparian forest, as well as 1.21 acres of riparian scrub habitat. In addition, 8.66 acres of off-site southern riparian forest would be created and 6.37 acres would be enhanced, and 3.31 acres of off-site riparian scrub habitat would be created and 5.41 acres would be enhanced. The Project would, therefore, provide over 35 acres of enhancement, restoration and creation of least Bell's vireo habitat (riparian forest /riparian scrub), which would provide more than enough habitat to support three least Bell's vireo. Thus, this impact would be mitigated to below a level of significance through creation, preservation, and enhancement of habitat occupied by least Bell's vireo, as well as measures to mitigate indirect impacts through breeding season avoidance and construction-period monitoring (M-BI-1 and M-BI-3a). ~~The acreage of preserved riparian scrub or riparian forest must be adequate to support at least three least Bell's vireo individuals.~~

The potential indirect impacts to nesting success would be mitigated through measures to mitigate indirect impacts through breeding season avoidance and construction-period monitoring (M-BI-3b). The loss of non-native grassland and pasture as foraging habitat for raptors (Impact BI-2) would be mitigated through the on-site preservation/restoration and off-site purchase of non-native grassland and/or raptor foraging habitat (M-BI-4e and M-BI-4f). The specified habitat mitigation ratios take into consideration the importance of preserving areas necessary to ensure the continued survival of least Bell's vireo and raptors. The habitat preservation ratios are effective, because through retention of sustainable habitat, sensitive species can continue to thrive. The mitigation would preserve species habitat, and thus help to ensure survival of these species within the Project site (open space) and the County. The mitigation ratios utilized for impacts to these species' habitat was developed based on NCCP Guidelines (CDFW and California Resources Agency 1997) intended to accomplish preservation of sensitive species, and

~~the~~ were reviewed and approved by the wildlife agencies ~~have reviewed and approved these mitigation ratios~~.

Implementation of the Proposed Project would result in significant impacts to sensitive habitats, including southern riparian forest, southern riparian scrub, coast live oak woodland, Diegan coastal sage scrub, non-native grassland, and pasture (Impacts BI-4a through BI-4f, respectively). These impacts would be adequately mitigated through on-site preservation (in some cases to include enhancement) and off-site mitigation or purchase of mitigation credits (M-BI-4a through M-BI-4f). Implementation of these mitigation measures would avoid or substantially reduce the significant effects because the mitigation ratios for impacts to these habitats were developed based on NCCP Guidelines (CDFW and California Resources Agency 1997), and the wildlife agencies have reviewed and approved these mitigation ratios. Additionally, these standard ratios have been applied to projects within the County since PDS developed its first Biological Report Guidelines in the mid-1990s (approved by the Deputy Chief Administrative Officer [DCAO]~~adopted by the Board of Supervisors~~). The ratios are identified as effective because these reviewing agencies have reached consensus that retention at these ratios will result in sustainable levels of these habitats.

Impacts to jurisdictional wetlands (Impact BI-5) would be mitigated by the creation of wetlands off site, as well as enhancement of on-site wetlands (M-BI-5). Implementation of this mitigation measure would mitigate impacts to these jurisdictional areas because the typical mitigation ratio for impacts to wetlands is 3:1 (with a minimum 1:1 creation ratio thereby replacing the values of the impacted wetland), which is a ratio the resource agencies reviewed and approved. Federal, state, and County policies require that projects have a no net loss of wetlands. Because the Proposed Project would mitigate its impacts to wetlands at a 3:1 ratio, including a minimum 1:1 creation ratio and 2:1 preservation/enhancement ratio, no net loss of wetland habitat would occur. The mitigation would be additionally documented through the resource agency permitting process, including a Section 404 Permit from the ACOE, a 401 Certification from the RWQCB, and a 1602 Streambed Alteration Agreement from the CDFW.

Impacts related to the adequacy of wetland habitat buffers (Impact BI-6) would be addressed through revegetation of areas where grading for manufactured slopes encroaches into the buffers with native (yet low fuel) vegetation, as well as including the buffer areas in the RMP (M-BI-6). These efforts would provide higher quality habitat in the buffer areas adjacent to existing wetlands, and~~ensure that sensitive wetland resources are protected~~ provide habitat monitoring and management of buffer areas through the RMP process. The proposed on-site biological open space would be preserved in perpetuity and managed by an appropriate natural lands management organization. Approval of the RMP by the County and wildlife agencies would occur prior to finalization of the map or approval of other discretionary permits. The long-term management measures would decrease the likelihood of resident/visitor incursion into the Project open space, and minimize any associated impacts.

Table 2.6-1
VEGETATION COMMUNITIES/HABITATS AND PROPOSED IMPACTS (acres)

Vegetation Community/Habitat	Existing On Site	On-site Impacts	Off-site Direct Impacts	Total Impacts
Southern riparian forest (61300)	19.61	7.56	1.10	8.66**
Southern riparian scrub (63300)	4.52	3.31	0	3.31
Coast live oak woodland (71160)	0.21	0.20	0	0.20
Diegan coastal sage scrub (32500)	3.12	2.03	0.24	2.27
Non-native grassland (42200)	45.47	38.70	4.47	43.17*
Pasture (18310)	0	0	0.58	0.58
Agriculture/orchard (18100)	3.25	3.25	0.77	4.02
Eucalyptus woodland (11100)	0.57	0.56	0	0.56
Ornamental non-native (11000)	0.40	0.40	0.32	0.72
Disturbed land (11300)	39.48	38.31	2.45	40.76***
Developed (12000)	2.41	2.21	8.92	11.13****
TOTAL	**119.04**	**96.53**	**18.85**	**115.38**

Source: REC 2013a

* **Scenario 1** would decrease impacts to NNG by 1.27 acres for a total impact of 41.9 acres.

** **Scenario 1** would decrease impacts to SRF by 0.01 acre for a total impact of 8.65 acres.

*** **Scenario 1** would decrease impacts to Disturbed habitat by 0.04 acre for a total impact of 40.72 acres.

**** **Scenario 1** would decrease impacts to Developed habitat by 0.03 acre for a total impact of 11.1 acres.

Table 2.6-2
SUMMARY OF REQUIRED MITIGATION FOR IMPACTS ASSOCIATED WITH THE PROPOSED PROJECT

Habitat	Existing On Site (acres)	On- and Off-site Impacts (acres)	Mitigation Ratio	Mitigation Required (acres)	Preserved/Enhanced/ Restored On Site (acres)*+	Off-site Mitigation (acres)+
Southern riparian**** forest	19.61	8.66	3:1	25.98	10.95	15.03 (8.66 acres of which must be creation)**
Southern riparian scrub	4.52	3.31	3:1	9.93	1.21	8.72 (3.31 acres of which must be creation)**
Coast live oak woodland	0.21	0.20	3:1	0.60	0.01	0.59
Diegan coastal sage scrub	3.12	2.27	2:1	4.54	1.29***	3.25
Non-native grassland****	45.47	43.17	0.5:1	21.59	7.98***	13.61
Pasture	0	0.58	0.5:1	0.29	0	0.29
TOTAL	**72.93**	**58.19**	**--**	**62.93**	**21.44**	**41.49**

Source: REC 2012a

* The open space limits shown on Figure 2.6-4 include revegetated manufactured slopes. These manufactured slopes were counted as direct impacts but also would be included in the open space after revegetation. In addition, the acres of these slopes were not included in the overall biological open space on site.

** Mitigation for wetland impacts requires at least 1:1 creation and 2:1 restoration/enhancement.

*** 0.44 acre of CSS and 1.21 acres of NNG preserved on site are proposed revegetation of temporary impacts from manufactured slopes in the wetland buffers.

**** **Scenario 1** would decrease impacts to NNG by 1.27 acres for a total impact of 41.9 acres and require 20.95 acres of mitigation. As a result off-site mitigation purchase would be reduced to 12.97 acres. It would also decrease impacts to SRF by 0.01 acre for a total impact of 8.65 acres and require 25.95 acres of mitigation. As a result, off- site mitigation purchase would be reduced to 8.65 acres of creation and 6.35 acres of enhancement.

+ On-site acreage available; however, it may not all be approved as restoration mitigation. Please note that on-site mitigation may decrease and off-site mitigation may increase.

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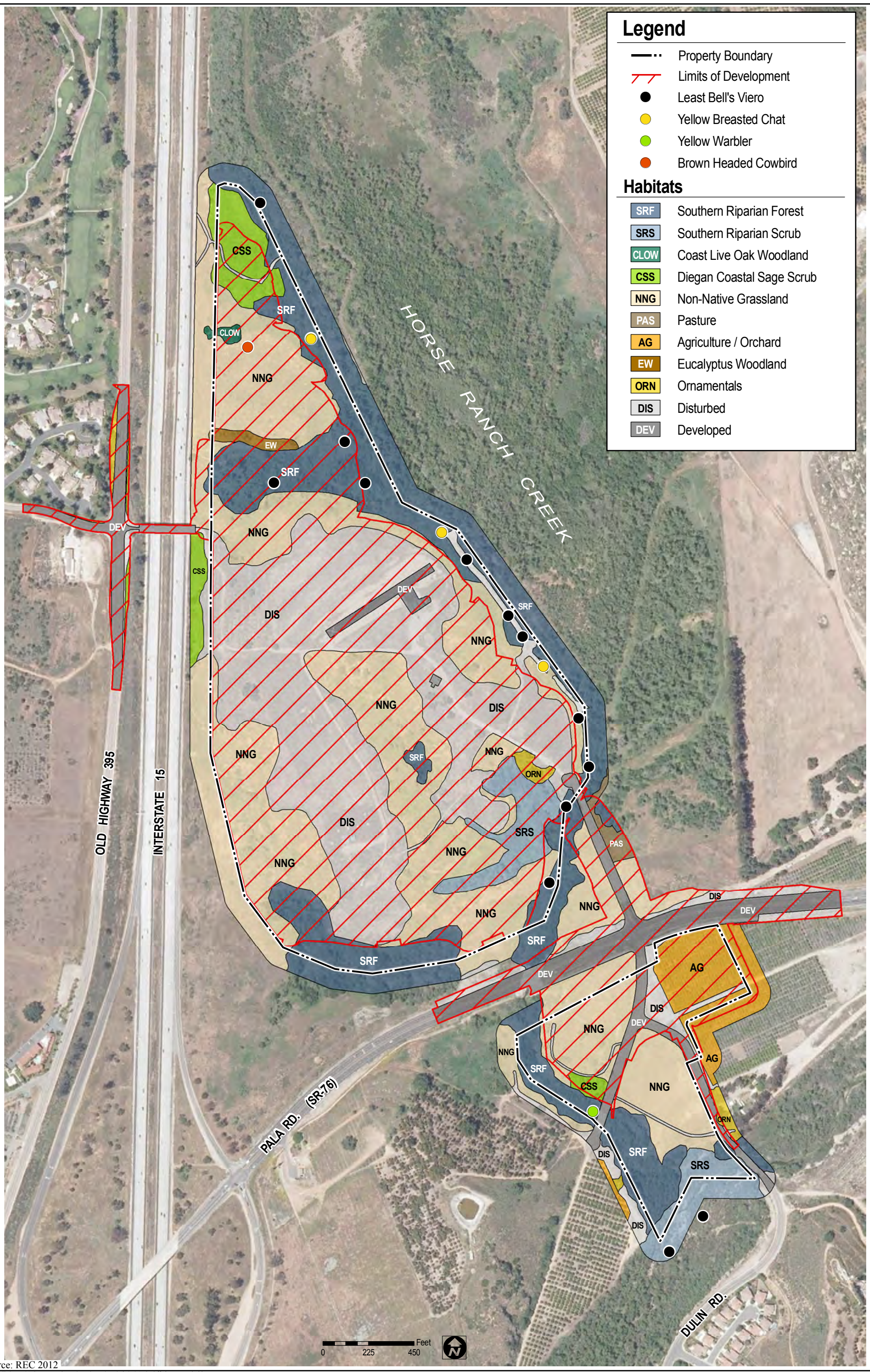

Source: REC 2012

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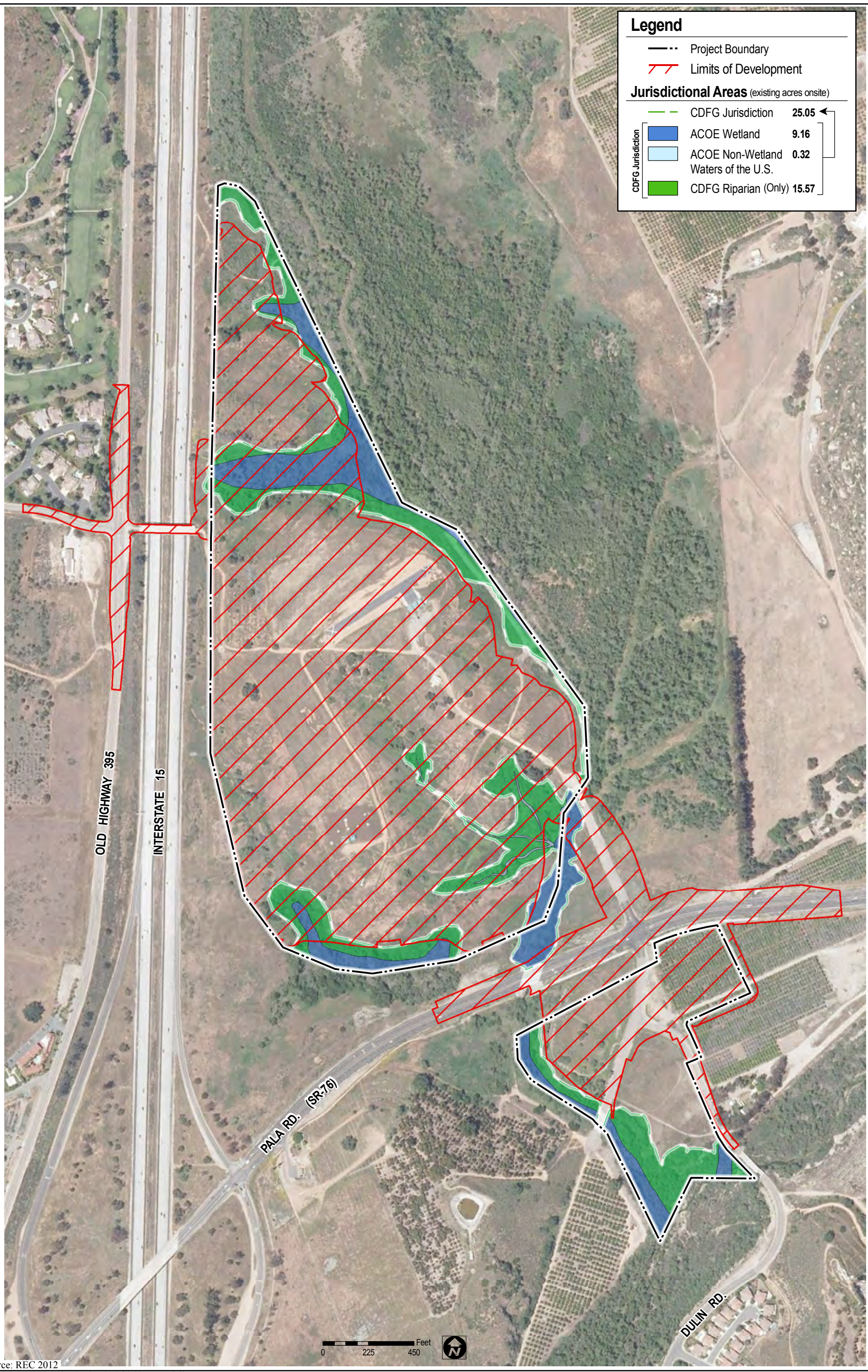
On- and Off-site Biological Resources/Impacts

CAMPUS PARK WEST

HELIX Environmental Planning

Figure 2.6-1



Source: REC 2012

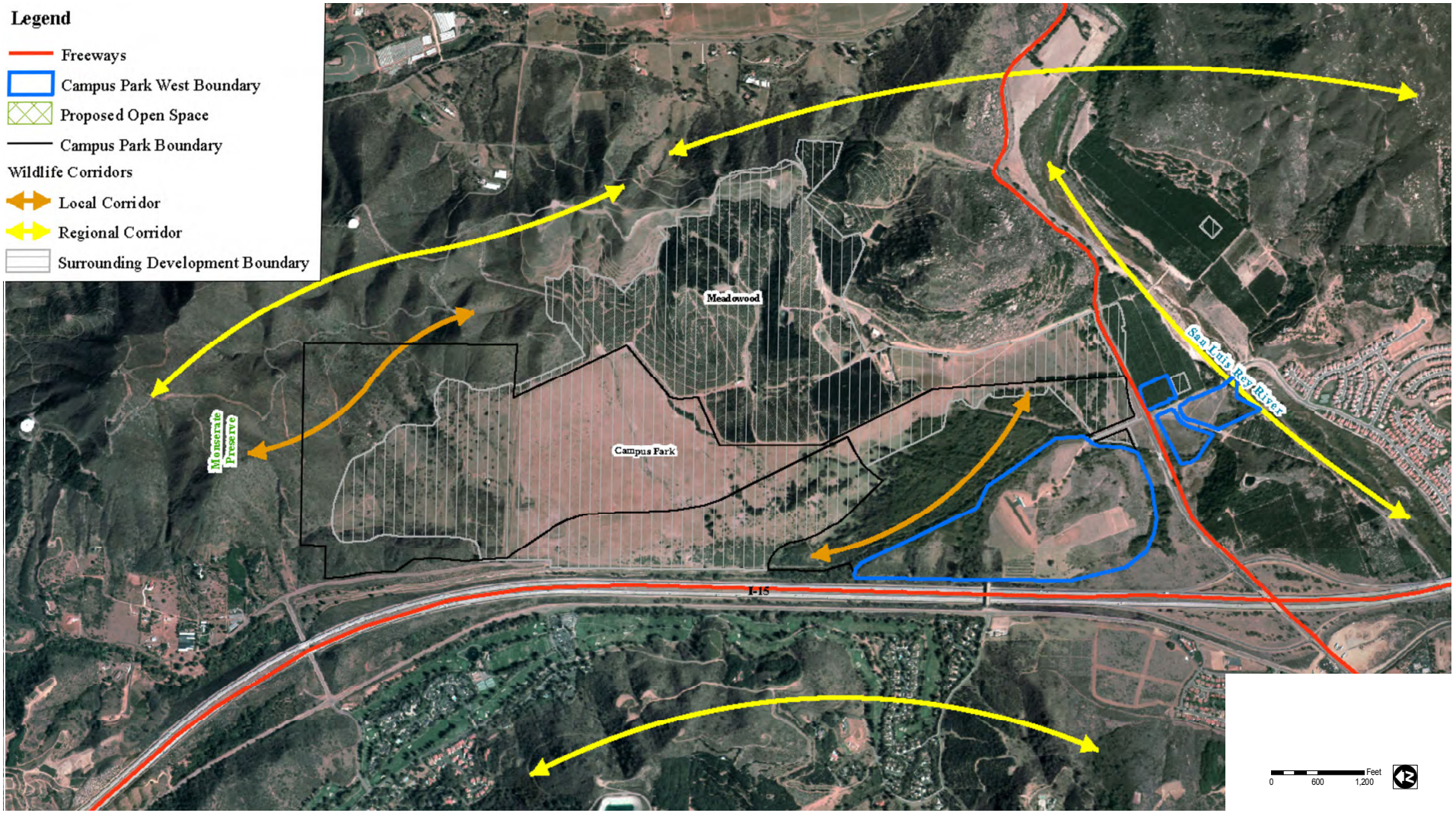
I:\ArcGIS\P\PIN-01 CampusParkWest\Map\ENV\EIR\Fig2-6-2_JDImpacts.indd -EV

Jurisdictional Delineation/Impacts

CAMPUS PARK WEST

HELIX Environmental Planning

Figure 2.6-2



Source: REC 2012

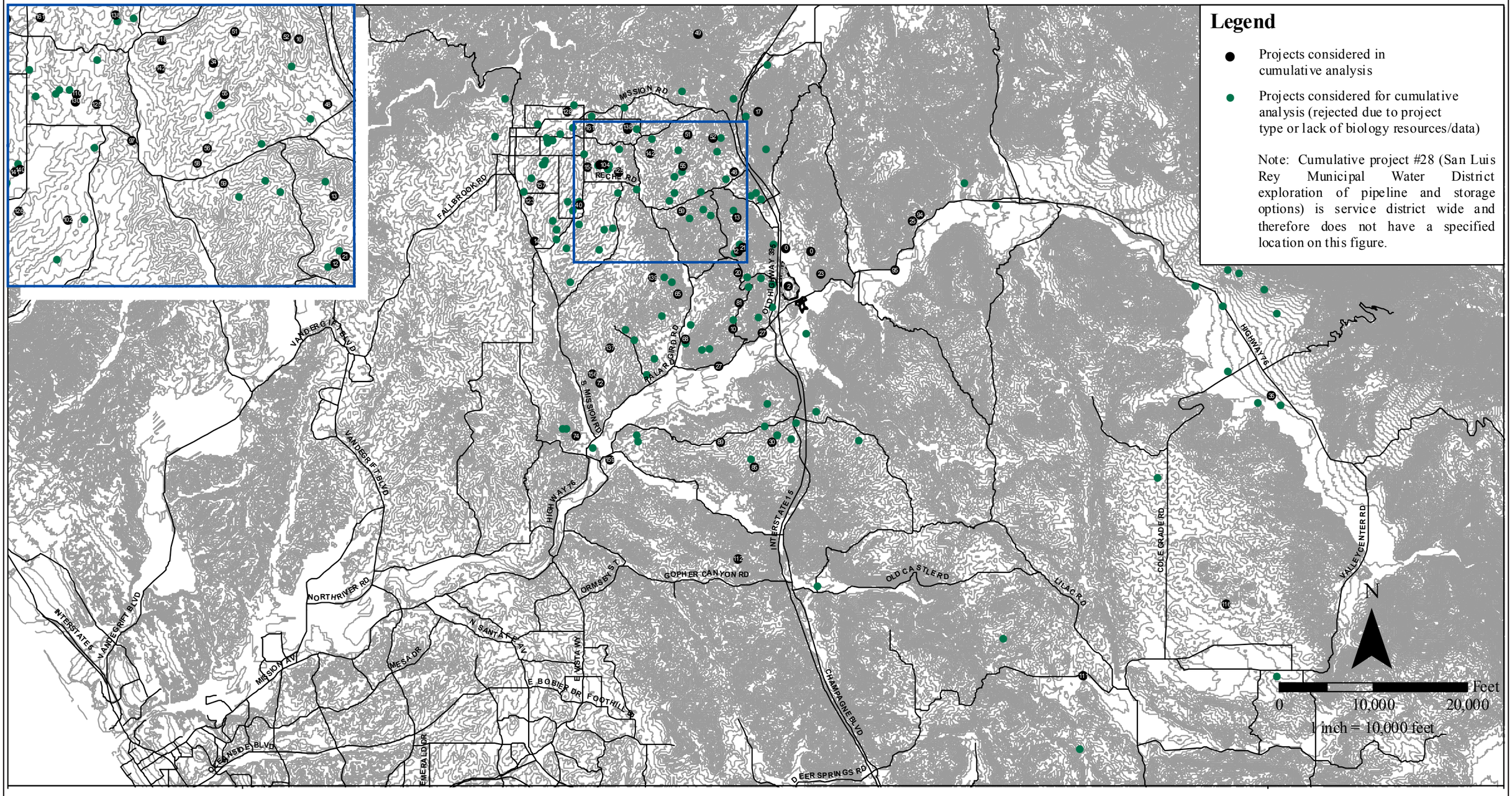
I:\ArcGIS\P\PIN-01 CampusParkWest\Map\ENV\EIR\Fig2-6-3_Wildlife_Corridors.indd -JP

Wildlife Movement

CAMPUS PARK WEST

Figure 2.6-3

HELIX Environmental Planning



Source: REC 2010

I:\ArcGIS\P\PIN-01 CampusParkWest\Map\ENV\EIR\Fig2-6-4_Cumulative_Bio.indd -JP

Cumulative Projects for Biological Resources

CAMPUS PARK WEST

Figure 2.6-4

HELIX Environmental Planning

I:\ArcGIS\P\PIN-01 CampusParkWest\Map\ENV\EIR\Fig2-6-5_BiologicalOpenSpace.indd -EV

Biological Open Space

CAMPUS PARK WEST

HELIX Environmental Planning

Figure 2.6-5